IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
Richmond Division

THE UNITED STATES OF AMERICA,

plaintiff,

versus 3:21CR42

KEITH RODNEY MOORE,

defendant,

Before: HONORABLE JOHN A. GIBNEY, JR.
United States District Judge

Day II (pages 152 - 345)

July 19, 2022

Richmond, Virginia

GILBERT F. HALASZ
Official Court Reporter
U. S. Courthouse
701 East Broad Street
Richmond, VA 23219

APPEARANCES

Erik Sean Siebert, Esq.

Shea Matthew Gibbons, Esq.

Assistant United States Attorneys

for the United States

Laura Jill Koenig, Esq.

Amy L. Austin, Esq.

Assistant Public Defenders

for the defendant

The defendant in his own proper person

THE CLERK: Case number 3:21 CR 42.

United States versus Keith Rodney Moore.

Mr. Erik Seibert and Mr. Shea Gibbons represent the United States.

Ms Laura Koenig and Ms Amy Austin represent the defendant.

Are counsel ready to proceed?

MS KOENIG: Defense is ready, Your Honor.

MR. SIEBERT: United States is ready, Your Honor.

THE COURT: All right.

MS KOENIG: Good morning, Your Honor. Before we start with the evidence in the case I wanted to bring to The Court's attention an issue that has been brewing between the parties for the last several days.

As I think the Government is essentially asking us to raise this with The Court, which is fine.

So on Friday afternoon, this past Friday, July 15, the Government disclosed to the defense a report a report that is dated July 15th, 2022. One of the signatures indicates July 13 or it could be 15th, I can't read it. But on July 15 of 2022 the Government disclosed a report by Agent Josh Valot, who is a special agent, I believe with the ATF. That report details a review of the traffic stop data that we had provided to the Government, and indicates that there

are counts of certain numbers of stops that the Government believed happened outside of the City of Richmond, as well as instances that the Government thought appeared to be duplicate records in the information. That report had no identification of which line items or which control numbers the Government believed were erroneous. And so over the weekend we had Dr. Coston check Dr. Coston's work specifically for the locations that the Government perceived to be outside the City of Richmond. During that discussion with Dr. Coston Dr. Coston indicated to us that before Dr. Coston had run the analysis in January, December and January of this past year, that Dr. Coston had taken the data that the Federal Public Defender office had provided, which was both the raw data that the Richmond Police Department had sent us, as well as the Geocodio accuracies that the intern at the Federal Public Defender office had done, and corrected the items that were below a .6 accuracy.

But what Dr. Coston found in plotting all of that data is that there were additional instances of stops that were outside of the City of Richmond. So Dr. Coston as Dr. Coston testified yesterday had gone through and manually checked each one of those stops as it related to the street information that was provided

in the location column in defense exhibit 14. Dr. Coston had done that prior. We don't know exactly the date. We tried to figure that out last night. But it was definitely prior to January 9 of 2002.

I did not learn that Dr. Coston had taken that additional step until we started drilling down this weekend once we had a report that said that the Government had made these findings. Certainly the Government in its motion limine, which is ECF 70, had reported these but never provided any substance, any reports that indicated that they had done further analysis. Nothing in their expert report indicates that the expert had found these alleged discrepancies, alleged discrepancies or information. And so Dr. Coston's report in defense exhibit two reports that Dr. Coston had excluded 82 stops as being outside of the City of Richmond. When Dr. Coston this past weekend had verified to see if that was accurate Dr. Coston found that there were 81 stops that were excluded. Once we did that verification I provided it to the Government. That is how Dr. Coston testified yesterday to explain the process of when Dr. Coston did these corrections. And Dr. Coston testified yesterday that Dr. Coston had excluded 81 of the stops as being outside of the City of Richmond.

Also, the Government provided between 9:00 and 10:00 p.m. last night for the first time a list of control numbers that the Government believed were duplicate entries. I provided data about an hour later to Dr. Coston. Dr. Coston by 7:00 a.m. this morning was able to review that, and may be in a position to say that some of those, or potentially many of them, or nearly all of them, may be duplicate records.

What Dr. Coston was able to determine as of, you know, between last night and this morning is that 76.8 percent of the alleged duplicates were from black drivers, and 14.5 percent of the duplicates were white drivers.

THE COURT: That is almost the same percentage as the number of stops.

MS KOENIG: It is, Your Honor. So it's very possible that these alleged duplicates may have no impact on Dr. Coston's findings. But because it may impact the sample size I believe for the accuracy of Dr. Coston's report and the integrity of the data in this case it would be important for Dr. Coston to be able to run those numbers again, and the test again, with these duplicates in mind.

So I indicated -- I discussed that with Dr. Coston. Because Dr. Coston is in this courtroom

today and has meetings scheduled all day tomorrow, the earliest --

THE COURT: This hearing is going to be done today. This part of it.

MS KOENIG: So, what I am telling The Court is that because the information that we have that we received on the duplicates was given to us on Friday afternoon Dr. Coston -- we didn't get the actual duplicates that Government believed, or the line items that the Government believed were duplicate -- I think it is appropriate for Dr. Coston to submit a supplement on whether or not these duplicates impact any of the other findings.

THE COURT: What do you have to say about that, Mr. Gibbons?

MR. GIBBONS: Good morning, Your Honor.

THE COURT: Good morning.

MR. GIBBONS: The data was provided to the United States on January 14th, 2022. In that e-mail Ms Koenig sent a first e-mail saying, I am going to send you all two more e-mails as well. One will contain the raw data as we received it from the Richmond Police Department; the other will contain the spread sheets as prepared for final analysis.

True to word, we received two emails. One

contained the raw data, one contained what we call corrected data. The Government used corrected data in all of its analyses over the last six and a half months. Yesterday we found out that that was not actually the data that Dr. Coston relied upon. Yesterday was the first time we saw that data. And when --

THE COURT: That was last night?

MR. GIBBONS: That was yesterday morning, Your Honor, at 8:00 a.m. When I talked to Ms Koenig yesterday morning, I said, what is the difference between this data and the data we have? And was told the only difference is that the data in exhibit 14 had the stops removed, the 81 stops separated out from the data.

THE COURT: Eighty-one --

MR. GIBBONS: Outside of --

MS KOENIG: -- potentially duplicate.

MR. GIBBONS: -- outside Richmond.

THE COURT: Eighty-one stops outside Richmond. Okay.

MR. GIBBONS: So on that assumption we did not object to exhibit 14 on the basis that it contained improvements or corrections that the United States had no knowledge of.

Dr. Coston never apparently provided the final data set to the defense until this weekend. And the Government never received it until yesterday morning.

We found out after the hearing last night, after we went to double check some of the numbers how this was a different data set than the Government had access to the entire time.

Your Honor, we raised all of these concerns about the stops outside Richmond and the duplicates in our April 8 filing. We did not identify control numbers, but we raised the issue there. We have concerns about the forthrightness of Dr. Coston's report. Dr. Coston said in their report in talking about the location data, I verified a random selection -- well, let me read one more sentence. I'm sorry, Mr. Court Reporter.

"For all locations with less than a .6 accuracy score locations were checked and corrected by an intern with the Public Defenders Office. I verified a random selection of these to insure accuracy and corrected latitude and longitude, and found no discrepancies in the corrections."

Dr. Coston did not disclose that they corrected a minimum of 128 data entries. Never disclosed that to the Government at all, didn't put that in the report.

THE COURT: What do you want me to do?

MR. GIBBONS: We are in a difficult position, Your Honor. We agree to withdraw the location arguments we made to Dr. Coston and in our report. That took dozens of hours to put together on the data that we had.

THE COURT: The location arguments are that -- what location argument?

MR. GIBBONS: The 209 stops located outside the City of Richmond. I think the parties are in agreement that 81 of those are outside the City of Richmond. These extra 128 we don't have time to run that analysis, so we are just going to drop that argument, Your Honor.

We do believe that the failure to disclose the final data set is a Rule 16 violation, either by the defense, if they didn't know Dr. Coston had a additional data set, but we are in a difficult position because we are talking with two different data sets that are 99 percent similar, but have significant differences.

THE COURT: Well, if they are 99 percent similar there is one percent difference.

MR. GIBBONS: That is why we are a little bit spun up about this issue, because we have done dozens and literally hundreds of hours of work on the old data set that we believed was the final one and now come to find

out yesterday it's a totally different data set.

THE COURT: So what do you want me to do?

MR. GIBBONS: I don't believe there is anything we can do at this point, Your Honor. We just wanted to notify The Court that when we were kind of talking past each other yesterday, Dr. Coston and I, it was a misunderstanding about --

THE COURT: I understand how it makes a little more sense now.

MR. GIBBONS: That is all we wanted to say, Your Honor.

THE COURT: Thank you.

All right.

Well, it looks like there is a minor difference in the data Dr. Coston had, that the Government -- that the defense had provided to the Government back in the winter and the evidence that was presented yesterday. But it appears to me that it's very minor.

So, let's hear from the Government.

MR. GIBBONS: Government calls Dr. Michael Smith.

THE COURT: All right. Dr. Michael Smith, the long-awaited Dr. Michael Smith.

Thank you for coming, sir.

MICHAEL SMITH

AFFIRMED AND TESTIFIED AS FOLLOWS:

DIRECT EXAMINATION

BY MR. GIBBONS:

Q Good morning, Dr. Smith.

A Good morning.

Q Please introduce yourself to The Court.

A I am Michael Smith, professor of criminology and criminal justice at the University of Texas in San Antonio.

Q Let's start with a little bit of your background and history. Did you formerly work as a Richmond Police Department patrol officer?

A I did.

Q How long ago was that?

A More than 30 years ago. Late '80s.

Q What effect does your work as a RPD patrol officer 35 years ago have on your scientific work today?

A None whatsoever.

Q You received a B S?

A Yes.

Q Where did you receive that bachelors from and when?

A Right here, Virginia Commonwealth University.

Q Then you went on to receive your juries doctor; is that correct?

A I did.

Q Where was that and when was that?
A University of South Carolina in 1993.
Q Then after that you received an additional degree, correct?
A That's correct.
Q Tell us about that.
A PhD Justice Studies from Arizona State University that I obtained in 1996.
Q You have been actively engaged in the field of criminology and racial justice research since 1996?
A Correct. I have.
Q Approximately how many published articles, how many articles have you published on the topics of criminology and racial disparity in policing?
A I don't know. I haven't counted them, but I would say between 15 and 20, maybe, just on this particular issue.
Q How many total in the field of criminology generally?
A More than 50.
Q In fact, you wrote one of the very first peer-reviewed racial disparity papers; is that correct?
A That's correct.
Q Tell us about that.
A That was an analysis from here, from Richmond.

The analysis was done probably in 1999. I think the paper came out in 2000. To my knowledge it is the first peer-revieweded paper in this field.

Q How many times has that peer reviewed paper been cited in the literature?

A Close to 300 the last time I checked.

Q Is it accurate to say that you were one of the foremost authorities in the country on racial disparities in policing?

MS KOENIG: Objection. Calls for something that is speculation on the witness' behalf, and also not appropriate vouching for the Government.

THE COURT: Well, go ahead, toot your horn. I guess the answer will be yes. You are not going to say no, I am not an authority, are you?

THE WITNESS: So I am not going to. I think most people in our field who work this area would agree that I am one of the leading figures in the discipline.

Q Let's talk about work with quantitative methods. What is your familiarity with data collection procedures?

A I am very familiar with them.

Q How long have you been performing quantitative research in the field of criminal justice?

A For more than 25 years.

Q Does that include methods of data quality control?
A Yes.
Q How often do you use statistics in your research?
A Regularly. All the time.
THE COURT: So, Dr. Smith, would you -- I neglected to write this down. You are -- what did you get your PhD in at Arizona State?
THE WITNESS: Justice studies.
THE COURT: What does that entail?
THE WITNESS: I am trained as a sociolegal scholar. So, it is the intersection of law and social science's.
THE COURT: Okay.
And what school are you in at UT San Antonio?
THE WITNESS: That is the University of Texas at San Antonio.
THE COURT: I mean what --
THE WITNESS: I am in the department of criminology and criminal justice.
THE COURT: Thank you.
THE WITNESS: Yes, sir.
BY MR. GIBBONS:
Q In fact are you chair of that department?
A No, not any more. I was the chair.
Q Okay.

A Back on faculty now.
Q What is your level of experience performing research with quantitative methods?
A As I said, I have been doing it for more than 25 years.
Q You talked about some illustrative examples of the kind of work you do that involves quantitative methods?
A Sure. In this particular, with respect to this particular issue in this case it is one of my primary areas of research expertise. As you mentioned earlier, asked earlier, I published many papers on this particular topic, on racial disparities in police-civilian contacts. All of them involved statistical analysis going back to that very first paper in 2000.
Q Can you give a couple of examples of the types of engagements that you do as an expert and as a consultant?
A Sure.

In the early 2000s I served as the United States Department of Justice's special litigation section's methodology expert in a series of consent decree cases in the early 2000s. I have served as parts, either held or served as parts of teams that have examined large-scale data sets and done these sorts of analyses

that are at issue in this case in many agencies. Some of the larger ones would include state level, state police agencies in Arizona. There is a highway patrol, Washington State Patrol. I did a major study with the Miami Dade Police Department, with the Los Angeles Police Department, with, most recently with the San Jose Police Department in California.

Q Does your work as an expert witness include representing plaintiffs in civil rights lawsuits?

A Now and then, yes.

Q Tell us about that.

A I am currently an expert in a case in the Southern District of New York that involves allegations of racial disparate treatment and targeting of Latino motorists in Suffolk County, New York. And I am the designated expert for the plaintiff in that case.

THE COURT: So, he asked you I think, do you don't represent people. You don't handle those as the plaintiff's lawyer?

THE WITNESS: No, sir. I am an expert.

THE COURT: As an expert, okay.

THE WITNESS: Yes.

BY MR. GIBBONS:

Q Dr. Smith, have you ever worked for the Government in your capacity as a social scientist who studies

racial disparities in policing?

A I mentioned that I have in the past served as a consultant, an expert consultant to the USDOJ. So in that capacity I was paid for that work. So, yes.

MR. GIBBONS: Your Honor, I tender Dr. Smith as an expert in racial disparities and law enforcement and quantitative methods?

MS KOENIG: No objection, Your Honor.

THE COURT: Thank you. He is recognized as an expert. You obviously have testified in litigation in the past.

THE WITNESS: I have.

THE COURT: Have you had any cases that have gone to trial, or all been settled?

THE WITNESS: I had one -- I actually testify as an expert relatively rarely. I have in the past. One of those cases went to trial. It wasn't a racial disparity case, it was a use of force case.

THE COURT: Thank you.

BY MR. GIBBONS:

Q If we could pull up what has been marked a Government's exhibit three.

This is your expert report, Dr. Smith?

A Yes, it is.

Q I believe this has already been admitted, Your

Honor.

THE COURT: Right.

BY MR. GIBBONS:

Q Exhibit four?

THE COURT: His CV. I have looked at it.

MR. GIBBONS: Has that been that admitted already, Your Honor?

THE COURT: It is now.

MR. GIBBONS: Great.

This is your CV, Dr. Smith?

THE WITNESS: Yes.

BY MR. GIBBONS:

Q Dr. Smith, as an expert in the field of racial disparities in law enforcement have you reached opinions in response to the opinions reached by Dr. Coston?

A Yes, I have.

Q What are those opinions?

A Well, the primary, I guess the primary conclusion is that the analysis that Dr. Coston did cannot be reliably relied upon to draw the conclusion that race was a contributing factor to the decision-making that occurred in this case.

Q What are your opinions with regard to Dr. Coston's quantitative methods?

A The primary quantitative analysis that she conducted, that Dr. Coston conducted, was discussed at length yesterday. The chi-square analysis. It is a well established sort of bivariate technique.

THE COURT: A bivariate?

THE WITNESS: Bivariate, two variables. Race and race and search.

Obviously that test is a statistical test that has been around for, I don't know, a couple hundred years probably, but it is used extensively in this field as a stepping stone, a means to more involved and more detailed analysis that typically follow that, what I would consider an intermediate step in examining this question of whether race had an influence on the outcome or on the decision to stop.

Q We will talk more about that in detail, but first I want to talk about data collection and quality control. Are you familiar with state-wide efforts to collect traffic stop data?

A Yes, I am.

Q How are you familiar?

A As I said, I worked on analytic teams that examined state-wide data collection, or the data produced by state-wide data collection efforts in Arizona and in the State of Washington. As part of the

Arizona work, our team actually advised the Arizona Highway Patrol on the fields and the process. We helped design the system that was in place.

Q What are some of the common issues with state wide efforts to collect traffic stop data?

A Well, you know, there are, it is a fraught, it is a fraught industry. So what I mean by that is that we have upward of 18,000 police departments in the United States. And they range from one person police departments with a single police chief, up to the NYPD with 35,000 police officers, and everything in between.

So when you are talking about trying to coordinate data collection across an entire state, you are talking even in small states of dozens or hundreds, and sometimes, in some cases in larger states, thousands of police departments, with varying sizes and capabilities. And you are trying to get them all on the same page to collect the same data elements in the same way in a consistent manner accurately. And then to enter them accurately into some system, some data base, some interface that then can be, where the data can be warehoused and eventually analyzed.

There are multiple opportunities throughout that entire process for error to be introduced. In my experience it is very, very common that that is the

case across statewide efforts. It is even common with single agencies for them to struggle with, particularly early on when data collection efforts are new to enter the data correctly and accurately and reliably.

Q What methods of data quality control do researchers in the field of racial disparities use with newly collected stop data?

A So there are a wide variety of what I would term data audit techniques that I use, that the teams that I work on, typically use to understand the nature of the data we are operating under. In fact, we undertake those data audits, those extensive data audits before we begin to analyze the data in any substantive way. And so, we check. We check first of all for the accuracy or in the completeness of each of the data fields that are collected. So, race, age, type of stop, whether a search was conducted. Each one of these fields that may appear in the data we audit to see how much of those data are missing, first of all. That is one check that we undertake. We do that across all the fields.

Then we undertake an internal logic test or audit to check to see whether or not variables that should be related to one another in certain ways are in fact related to each other in certain ways.

So, as an example, if the data collection regime asks the police department to indicate whether a search was conducted and whether contraband was found, then you should not have any instances where contraband was found but a search wasn't conducted because contraband is a product of the search.

So we call these internal logic checks.

So we do that across all potential variables that could interact in a way that you would expect, or not expect to see whether or not those data align, to see whether there are internal consistencies or inconsistencies across data fields.

Q Go ahead.

A Then the final type of check that we prefer to do is to check the data that is collected by the police department against an external data source. This is an overall validity check. It helps answer the question whether the police are accurately entering the data into the system, whether they are doing that, doing that accurately. And it helps us understand whether or not there are systemic patterns of differences that one might not expect.

So, as an example, it's often a question in these kinds of data collection processes, it is often a question from stakeholder groups or from the community,

there are lots of skeptics in the audience about whether the police are really accurately entering information, for example, on driver race. You know, the perception among some stakeholder groups of course is that the police have every incentive not to enter that data accurately.

So, an external audit would compare the stop data that the police have entered into the system to some external data source that should align with that stop data. For example, traffic citations. So, in some states traffic citations contain the race of the driver. The race of the driver is also entered into the data collection system that is at issue.

We spent some time talking yesterday about control numbers, and what we call case IDs, that is why they are very important because they typically would, you will be able to link a stop that has been cataloged in the data collection system with the traffic, the corresponding traffic citation that was issued in that case to see whether or not the race that was indicated on the traffic citation for the driver is the same as the race that was indicated in the data collection system. An external audit check. I do that in the way that I just described with traffic citations. You can also, you know, in Miami Dade, for example, we took

random sample of drivers whose race ethnicity was entered into the stop data system, and we obtained their digital driver's license photos from DMV. And we had a panel of people review those driver's license photos against the race and ethnicity indicator that the officer provided in the data collection fields to see whether or not there were obvious mismatches. Officer indicates that the person is white when the drivers license seems to indicate that they are African-American, for example.

So that is another method that we use as an overall check for validity.

Q You talked about instances where there is missing data in the traffic stop entry. What is the data audit standard for when a traffic stop entry contains one or more cells of missing data?

A Well, we typically like the agencies that we work with, like to see less than a five percent missing data rate in every field. Often times, particularly early on in the data collection process, if it is a new system, or a new, you know, a new mandate, never been in place before, you will see large percentages of missing data. And then through the process of engagement with the agency that I worked with over the years we work with them to help them get better to

collect their data more accurately so that those missing data percentages shrink.

Again, we hope -- there are certain rules of thumb is less than five percent missing data. Obviously the smaller the better, but five percent is sort of the max that we really wouldn't want to be able to see any given data field.

Q When you identify missing data when you go to perform your analysis, what do you do with that data?

A Well, if there is a case, when I say case, let's say a traffic stop, that contains a missing piece of information so the race of the driver isn't there, there is a field, mandatory field that says you are supposed to indicate whether a search was or was not conducted and that is missing. So if a single record, single case, a single traffic stop has any piece of missing information in it, then we exclude that case from the analysis.

THE COURT: Wait a second. Suppose you were checking to see race and they had forgotten to put in gender. You would exclude, still exclude that?

THE WITNESS: Yes.

THE COURT: Why is that?

THE WITNESS: So that is, that is just a careful data management practice that most experienced social

scientists follow.

THE COURT: Well, but I don't understand how it affects the validity of the racial data if they haven't written down the gender.

THE WITNESS: There was some discussion yesterday about the idea that if a traffic, if a single record of data contains missing information it at least raises the question about whether there are other fields that may not be accurately represented. And so, granted, it is a conservative approach to eliminate that data in entire record, but that is the approach that most social scientists that I am familiar with will take with missing data. And that is how I treat missing data.

THE COURT: I just don't understand if you are concerned about race and there is -- I don't understand why, why that --

THE WITNESS: Well --

THE COURT: -- why that says, well, we are going to ignore those.

THE WITNESS: Because often times, Your Honor, race ends up being analyzed in conjunction with other variables in that data set. So if other variables that interact with race are missing, then that would affect the outcome of the analysis.

THE COURT: So if you weren't checking for other variables, then it wouldn't -- for instance if you were looking to see whether there was an unusual number of African-American women who were stopped, if we weren't worried whether they were women, the identification wouldn't affect that, would it?

THE WITNESS: Probably not. But in the analysis that we typically do there are multiple interaction effects that we examine. It is almost never the case that we would simply look at a variable in isolation and not part of a larger set of analyses. There is more than one variable would be considered either in a bivariate analysis like was conducted here, or in a regression model. So, again, the more conservative approach is simply to eliminate any case that has missing data in it it.

BY MR. GIBBONS:

Q How do researchers in the field of racial disparity research deal with duplicate data?

A You have to diagnosis why -- first of all you have to diagnosis what you are looking at. Do you really have truly duplicate cases? If you truly have duplicate cases, then it raises real questions about why that is. There is, you know, throws the data collection process itself into question.

If the system is not designed to have duplicate records in it, and it has duplicate records in it, then that is a real problem, a real concern. Obviously you would eliminate those, but more fundamentally you would be concerned that there is something wrong in the way that the data were collected.

THE COURT: So your concern that this, as with the exclusion of things missing one of the cells, is essentially that what you are worried about is that there are overall sloppy collection techniques?

THE WITNESS: That is part of the concern, Your Honor, yes.

THE COURT: What is the rest of it?

THE WITNESS: Well, as I mentioned earlier, a missing cell in and of itself, if that cell weren't of concern to the analysis would probably be trivial. But because we interact so many of these variables with each other, then it becomes non trivial or potentially non trivial.

THE COURT: So it has a statistical significance in the way you run the statistical program.

THE WITNESS: It could.

THE COURT: But, I mean, like your main concern is that these folks are doing that sloppy job gathering the data.

THE WITNESS: Statistically true of the larger, the more missing data that there is the greater the concern. In cases of true duplicate records when there shouldn't be duplicate records -- there are instances you would expect to see duplicate records. For example, some traffic stop data collection regimes collect data on everyone in the vehicle. Driver and passengers, for example. So, the single traffic stop which has the, which has an appropriate RMS system, records management system, or CAD system, computer aided system, would assign a unique ID number. You might expect to see multiple entries for that unique ID number associated with the driver and let's say a passenger, or a driver and two passengers, you know. So you would see duplicate records under the same case ID, but involving different individuals in the vehicle. But when you have a data collection process where the only information being collected is on the driver, you might say, and you have duplicate records that appear to be the same driver who has entries for him or her more than once, then that is a systemic problem that is of concern.

BY MR. GIBBONS:

Q And if a researcher in the field of racial disparity research happens to be stuck with wrong data

for one reason or another, what does that researcher do about it?

A Well, it depends how poor it is. You know, there is degrees of these things. On some level the data may be so poor that, you know, a reputable social scientist would look and say these data are --

MS KOENIG: I am going to object to that, they are missing. Testifying about what other people would do. He can testify what he would do.

THE COURT: I think what he is testifying is about what the standard is in the field and tying this into Dr. Coston's analysis of the data that he received. And what he is saying, what I suspect he is going to eventually say is Dr. Coston's methodology doesn't comply with the standard in the field, and that it is therefore unreliable so under Daubert I should not consider it.

I think that is where we are going.

MR. GIBBONS: Yes, Your Honor.

THE COURT: So, what was the question? The question -- he was talking about there are degrees of inaccuracies. And what was the question about?

MR. GIBBONS: The question was, if a researcher is --

THE COURT: What do you?

MR. GIBBONS: What are, what do you do with it?

THE WITNESS: I mentioned sort of a rule of thumb of five percent, you know, missing data standard for example. It if it is under five percent then, of course, as I said, we eliminate any case that is missing a piece of information. But, you know, I would continue to proceed ahead to analyze those data. If the data were missing a larger percentage of information, then at some point I believe, again certainly myself and other researchers that I work with regularly in this field -- would be concerned about analyzing the data at all.

THE COURT: So there is a degree of inaccuracy above which you simply decide, well, this data is not an appropriate subject of statistical investigation, is that right?

THE WITNESS: Yes, sir, Your Honor.

Usually there is conversation that is involved. Often times, as I say, it's a continuum, right? So often times you will have data that falls above the five percent threshold that we would like to see, but nothing like, you know, not missing fifty percent of the data. So maybe 20 percent, let's say, my example. Typically a conversation involved with the stakeholders. Sometimes that may be the City or the

police department. Sometimes that might be, you know, whoever commissioned the study or the analysis. If it is a federal grant you might have to have a conversation with the granting agency. But typically there is a conversation that looks something like, hey, we have taken a look at these data, we have audited the data, we are missing 25 percent of the fields across the data set. We can proceed with the analysis, but understand that that degree of missing data could influence the outcome. So depending on how that conversation goes, we may or may not proceed. If we do proceed then we typically caveat the findings pretty heavily in terms of what can be legitimately concluded based upon them.

THE COURT: Well, if the data is not reliable why would you as reputable social scientist provide that to your client who is presumably going to do something with it?

THE WITNESS: Because, you know, the primary stakeholders' opinion matters, you know. And they, you know, have a voice and they should have a voice. So once the information is accurately presented to them about what the data audit has revealed, and if it reveals significant problems and they wish to proceed with the analysis, then we would proceed. But, again,

we will do that with full recognition on the part of everyone that the data are missing significant pieces of information or are otherwise unreliable, and therefore the results have to be taken with a very large grain of salt.

THE COURT: So you would tell them, we will proceed, you have got to understand you are getting a Yugo and not a Mercedes?

THE WITNESS: Yes, sir.

BY MR. GIBBONS:

Q Dr. Smith, we talked about data collection procedures and collecting the data.

Now I would like to go to the next step, which is benchmarking. Specifically with reference to racial disparity research. What is the main problem that researchers face in benchmarking?

A Well, the problem with benchmarking, we call that the benchmarking problem. The basic idea is that it is relatively easy, we have been talking here this morning about collecting data and the difficulties and the complexities of that, which is all true, yet when the processes mature enough and has sort of passed that, you know, that five percent missing data reliability check box and, you know, internal validity checks are, you know, aligning and so forth, we would have fairly

high degree of confidence the data are being collected appropriately. So, then ascertaining the race, for example, or ethnicity of the driver as indicated by the officers when they make traffic stops is sort of relatively easy, you know. The cops are required to enter this information. They enter that information reliably, and so we know that over a period of time they have made X number of traffic stops and some percentage of them are of white drivers and some percentage African-American driers or Spanish drivers and so forth. So that is administrative data that sort of serves as a foundation of the analysis.

But knowing that a percentage of -- that the percentage of a population of stops is comprised of some percentage of whites, blacks, Hispanics and Asian, for example, is meaningless unless you can compare that to a meaningful population. That's in the, that is the heart of the benchmarking problem. So identifying what that -- that meaningful population should be an estimate, a reliable estimate, of the people who are at risk or available to be stopped in that jurisdiction.

That is the definition of what a benchmark, good benchmark, should be.

THE COURT: Let me see if I understand correctly.

You said, I think, a second ago, ascertaining the

race is the easy part.

THE WITNESS: Yes.

THE COURT: Because you can know how to identify people's race.

But the difficult thing is comparing that to a meaningful population of the people who are essentially available to be stopped.

THE WITNESS: That's correct, Your Honor.

THE COURT: In this case, that would be the motoring public during the relevant time period.

THE WITNESS: That is exactly right.

THE COURT: So if there are -- if there are a hundred thousand drivers motoring in a particular area, and you would need to know -- let's back up a second.

I am trying to see how the plays out.

Well, let's just look at our case here.

If, well, 77 percent of the people are stopped by the police are African-American, would you, would it be important to know whether 77 percent of the people who were driving around are also African-American, in which case it would not be surprising that 77 percent of people stopped are African-American?

THE WITNESS: That's right, Your Honor.

THE COURT: But in contrast, if ten percent of the people who are driving around are African-American and

77 people, or percent of the people who were stopped are African-American, that would be a more meaningful statistic in terms finding some sort of discrimination.

THE WITNESS: Correct.

THE COURT: And okay.

Now, how do I make -- I may be getting ahead of myself here. I apologize.

How do you decide what kind of -- how do you determine a disparity for motor vehicle stops, benchmark for motor vehicle stops? I take it you are doing this in this Suffolk County case you are working on?

THE WITNESS: Actually, we are not.

THE COURT: Why are you not?

THE WITNESS: Because we don't have the data.

THE COURT: So what are you going to testify about? Are you going to be the Dr. Coston in that case, that was consulted by some statistician from a university?

THE WITNESS: Well, so the benchmark question is the key in the -- if the -- if the question at issue is whether the police are disproportionately targeting minority drivers, then the only way to answer that question is if you have an estimate of the population of persons who are available to be stopped and the

racial composition of those people.

THE COURT: Right.

THE WITNESS: We estimate that -- there have been a variety of ways that have been attempted over the years, and there is kind of three main ones that sort of surfaced in the peer-reviewed literature over the last 20 years, I would say, of ways to do that.

One is direct field observation. Some might consider that the gold standard of benchmarking. That literally means you put a research assistants typically on street corners making observations of drivers. More sophisticated ways of doing that involve actually looking at traffic violations as well. So, I did an observation study once in Miami Dade County, for example, where we measured not only systematically the perceived race and ethnicity of people passing by in vehicles at selected intersections, but we also looked at traffic violations at those selected intersections. So we had researchers with radar guns looking at speed. We looked at red light violations. And we looked at controlled intersections like stop sign violations as well. So there is a range of ways that you can do it. But basically the idea is you are putting people out on the roadways actually making observations of who is driving and who is committing traffic violations at

certain places. It's an excellent way to estimate who is out there driving and who is out there violating traffic laws. The problem with it is very time consuming and expensive to do. So there haven't been that many of those kinds of studies done. Primarily because of the time and expense that is involved. That is one technique, though.

Another technique that has again emerged I think in the scientific literature was mentioned yesterday, veil of darkness approach. It is actually, it is useful and doesn't require an external benchmark. It's an analysis of the stops themselves based on the time of the day. Now, there is some significant assumptions built into that recently, for example, been called into question.

But the basic idea with veil of darkness approach is that the researcher compares stops of drivers by different races during the day to stops of those drivers of different races at night. They use, we use natural variation in daylight and daylight savings time to do that type analysis. So, for example, at 5:00 p.m. in December it is dark in a lot of places in the country. At 5:00 p.m. on July 1st it is broad daylight in a lot of places. So, the veil of darkness uses that natural variation in daylight and in daylight

savings time to look at windows of stops that are sometimes at night in full darkness, and sometimes at day, in the day, depending on the time of the year, to see whether or not those daytime and nighttime stops vary by the race or ethnicity of the driver. So the basic picture here is that if you assume, and this is one of the assumptions, the untested assumptions of the veil of darkness approach. But if you assume that officers, that it is more difficult to ascertain the race and ethnicity of the driver prior to the stop when it's dark outside, if you make that assumption then the nighttime set of stops represent a less biased estimate of traffic stop behavior because presumably the officers can't tell who they are stopping until they walk up to the car. And you compare that the stops that are made during the day of that same racial group. And if you see higher rates of stops of minorities, for example, during the day compared to the percentage of minorities who are stopped at night, then that is some indication that there may be a biased mechanism involved that.

I have done that analysis a number of times myself and reported it in the peer-reviewed literature. So it is an accepted technique, Your Honor, to estimate the benchmark, a benchmark of drivers compared stops.

The other technique that has appeared a number of times in the literature is use of traffic crash data to estimate the population of persons at risk for being stopped.

So this technique was developed in the early 2000s. I was actually part of the team that pioneered this technique.

It has been replicated a number of times now in the peer-reviewed literature as well. So the idea and this comes from traffic safety literature going all the way back to the '50s. The idea is that when people are victims of traffic crashes, meaning they are not at fault, they were just run into, that over time and over a large enough sample of those not at fault drivers in crashes that population provides a reliable estimate of who is actually out there driving available to be run into if you will look at it that way.

So, if 40 percent of your not-at-fault traffic crash victims are African-American then that gives you a pretty good idea that about holder groups percent of your drivers are African-American.

So, this analysis then compares the percentage of people who are not-at-fault drivers in two vehicle crashes by race against, that is the benchmark, against which police stops by race are compared.

So that is a long answer to the question, Your Honor, but those are the three main techniques I think emerged in the peer-reviewed literature in the last 20 years.

THE COURT: Okay. See if I have it correctly. Three ways to do this. One is to count noses. Two is -- three is to look at crashes. And two is veil of darkness.

THE WITNESS: Yes.

THE COURT: Okay.

THE WITNESS: There are a few others that have been attempted. Looking at red light cameras, for example, things like that.

THE COURT: All right. Go ahead.

BY MR. GIBBONS:

Q You are doing my job for me, Your Honor.

THE COURT: Well, no, I am not. I am fouling up your case for you, probably. You wouldn't be alone.

BY MR. GIBBONS:

Q Dr. Smith, census data was used, especially initially, or is used as a benchmark. Talk about the advantages and disadvantages of using census data as benchmark.

A Census data is what I have termed a first generation benchmark. It was the earliest type

benchmarking that people in the field did.

THE COURT: In a traffic stop.

THE WITNESS: In traffic stop analysis.

So first generation benchmark. We did this around 2000 in a few years on either side of it primarily. Frankly, because the science had not evolved beyond that.

When I did that first paper in Richmond in 2000, for example, there was no peer-reviewed literature. There was some agency reports, expert witness reports a little bit that had been done. But there was no literature base, no scientific base to draw upon when trying to figure out how do we, what do we compare against the percentage of drivers who have been stopped by the police who have given us, given race or ethnicity.

So, you know, an easy way, and in some ways sort of an intuitive way, is to say, let's just look at the census data, look at, you know, who resides in a particular jurisdiction and compare those racial composition of who lives there to the composition of who is stopped.

So, that is the first generation, sort of set of analyses that were done using census data as a benchmark.

We were pretty quickly, even then, for example, look at my Richmond paper from 22 years ago, there is some recognition, you know, some recognition that we at least ought to look at the sort of age-adjusted population, look at people who are 16 and older, for example. If you have to be 16 to get a driver's license we thought then at least we ought to be looking at the population that is 16 and older in a given jurisdiction to at least rule out, you know, the three year olds who can't drive a car. So that is what we did.

When I say we, this is literally what I did in the early, in the early 2000s, but what other researchers did in a number of other papers that were published in those days.

It pretty quickly evolved, though, to the point where we began to recognize that the census population is really a poor benchmark. It as poor estimate for actually who is driving in a population. That is really what we care about. We need to compare apples to apples. If we are comparing police stops we need to be comparing that to who is available to be stopped. Which means you have to be driving to be available to be stopped. You can't just be living there.

So, there were some many comparative studies that

began to look at how do we, if we can estimate the population using one of these techniques I just mentioned, and we compare it to the census population, we begin to see big divergences. In some places significant divergences. So you can think about, you know, any given large urban area that has suburbs. We have large numbers of people, at least pre COVID, who commuted to work every day. Those suburbs often look very different from a race and ethnicity standpoint than the residential population of the City being the core, the urban core of the city where the stops are occurring. So research began to uncover that. We began to realize, hey, using the census as an estimate for who is driving is really not good science. And so, you know, people who work in this area regularly, analysts like me, who work in this area regularly, stopped using the census as a benchmark at some point around, you know, 2005 to 2010 primarily.

Q How well does census data account for factors such as police deployment patterns, or potential driving differences among racial groups?

A Well, it doesn't account for those at all. So the answer is, it doesn't account for them at all.

Q Despite the movement away from census data and racial disparity research, do you still occasionally

see census data being used in articles?

A You know, I have not seen census data used as a benchmark in the peer-reviewed literature, and I would review a lot of these papers. I want to say in the last five to seven years I have not seen that.

Now, some people will submit papers using the census benchmark. Reviewers typically reject those for the reasons I just articulated. I can't say there has not been a paper that used census as benchmark against traffic stops, but it has certainly fallen out of regular use in favor among experienced social scientists who work in this field.

Q Yesterday defense talked about a New York stop and frisk article that relied on census data. Why is that comparison inapt?

A So, a stop and frisk analysis compares the racial composition of people stopped and frisked by the police. That is analogous to the traffic stop data that the police collect. In that case it seems, and again, I haven't read than paper, but at least from the representation in the courtroom yesterday, to the census population of people who live in particular areas of New York.

MS KOENIG: I think I just heard -- objection, I just heard Dr. Smith say he had not read the paper. I

don't know that it as appropriate for him to comment on something he hasn't read.

THE COURT: Well, I think what he is commenting on is not so much the paper but on how you benchmark stop and frisk to something else.

Is that fair to say, Mr. Gibbons?

MR. SIEBERT: I can rephrase the question. I think it will help.

THE COURT: Rephrase.

BY MR. GIBBONS:

Q Dr. Smith, what population of citizens does the New York stop and frisk study analyze?

THE COURT: He doesn't know. He hasn't read it.

THE WITNESS: There have been many studies that have been done of NYPD stop and frisk practices, some of which have used some version of the census, not necessarily as a benchmark, but as part of the analysis that is done.

Q In particular that article that was referenced yesterday, did that concern pedestrian stops?

A Stop and frisk study, it concerns pedestrians, not drivers.

Q What is the difference between pedestrian benchmarks and driving benchmarks?

A Well, again, benchmark the science of benchmark,

benchmarking is about trying to identify the best estimate that we have of who is driving in a population. Who is available to be stopped if it is a traffic stop study. Or in a pedestrian stop study, it is trying to define the best estimate of who is available to be are stopped on the street as a pedestrian by the police.

And some would argue that census data is a better estimate, closer estimate for pedestrian stop studies than it would be for traffic stop studies because it is a representation of who lives and circulating on foot, presumably, in an area, particularly in an urban area.

Q I would like to talk now about the reasons that motorists be stopped by the police. What are the risk factors that would lead to a traffic stop from the motorists' perspective?

A Number one factor is how you drive. So, violating behavior is a significant risk factor. The type of vehicle that is driven. So, traffic codes across the country have lots of provisions that regulate the condition of the vehicle that are citable if the vehicle doesn't meet those conditions. So that is a risk factor for stops by the police.

The deployment or the concentration of police officers in certain places in proximity to large

numbers of drivers matters. So it's not uncommon to see a cluster of traffic stops, for example, along major thoroughfares because they carry not only higher volume of, they carry high volume of cars, but they also carry higher volumes of cops who are out there looking for people who are violating traffic laws.

So that can matter.

Those are a few. The main ones.

Q Speaking across the nation, does it appear that there is a raw statistical racial disparity in who police stop?

A So it's not uncommon for the traffic stop literature to uncover racial disparities in traffic stops even applying the appropriate benchmarks that I mentioned.

Q What can a researcher determine about whether bias is an issue in that particular traffic stop when they discover a raw statistical disparity?

THE COURT: Are you asking if whether you can conclude that a particular stop is based upon racial bias? Is that what you are asking from overall statistics?

MR. GIBBONS: Or or how inference is made given the raw statistical few disparities in question, Your Honor.

THE COURT: Whether they are not with regard to a particular stop, but with regard to a pattern of stops?

MR. GIBBONS: Yes, Your Honor.

THE COURT: Okay.

So the question is, from a statistical, or from a numerical disparity of stops what can you conclude about whether there is an overall problem, I guess?

THE WITNESS: I understand the question, Your Honor.

The crux of the issue in a lot of these cases. So I will say this. Careful social scientists that work routinely with these kinds of data and do these kinds of analyses do not purport to reach conclusions about discrimination or potential discrimination based upon -- based on the findings of disparity in traffic stops.

BY MR. GIBBONS:

Q I would --

THE COURT: What you are saying is that a disparity in the number of stops does not justify a conclusion that there is biased policing; is that correct?

THE WITNESS: That's correct. And that is because there are -- for a number of reasons. First of all, it is, you know, benchmarking is, as we have just been

discussing, is an inexact science in and of itself. Every benchmark as its limitations. Some are worse than others and have been largely discarded by the scientific community. Even the ones that remain standing are estimates, right. Who is driving out there on any given day. That is one problem or one reason why careful researchers don't make claims about discrimination based on estimates of bias -- of disparity.

And then in the other reason is for, going back to the previous question, that there are typically a host of factors that can cause racially disparity results in traffic stops. Many of which have nothing, logically nothing to do with potential bias decision making by the police. And some of those variables are often times not well measured. We don't have them in the data, or they are -- they can't otherwise be measured or controlled. And so, you know, you are left with some often times, back to the question you just asked, you are often times left with disparities in traffic stop study findings. That is probably more common than not across the literature. But what you typically won't find, in the peer-reviewed scientific literature any way, are claims that those disparities mean that the police are out there targeting people because of

their race.

THE COURT: So then unfortunately, or fortunately, depending how you look it, our country has come a long way from the days of Sheriff Bull Connor down in Alabama or Georgia, wherever he was, saying that he is going to treat African-American people badly. People just don't say that any more. How do you prove that there is bias in policing without a smoking gun, somebody saying, let's go arrest all the African-Americans?

THE WITNESS: Well, from a social science standpoint, good social scientists don't make claims that, we say, go beyond your data. You know you have to be humble in this field and recognize that you are a social scientist, you are not working inside a laboratory. You are not a physicist or chemist who can control the environment. You are working with real world data that is often messy. And where a whole host of real world factors can impact the results that you are interested in analyzing.

So, what you have to be very careful of is getting, not making claims that get out ahead of your data where you say things that the data cannot support from a scientific standpoint. So, you know, it is proceedings like this and people like yourself and the

attorneys that ultimately have to decide, you know, based on legal standards what equals discrimination or what doesn't. It is people like me that can only help inform you that there are limits to what we can say and not say about that ultimate question.

THE COURT: Well, but I have got to make the decision in this case. And I guess there will are probably other judges out there that that need to make similar decisions in similar cases. And going beyond me, there are political leaders who need to make similar decisions for moral grounds. You don't want a society that allows that.

But what are telling me is that a simple disparity doesn't justify my making a decision that there is biased policing. So what do I need on top of that if, assuming once again that I am not going to have police officers saying let's go arrest all the African-Americans, or whatever.

THE WITNESS: Well, sometimes there is direct evidence of that. There is text messages, there is MDT messages, there is radio chatter that provide direct evidence of potential bias on the part of officers. But absent that smoking gun, you know, a high quality racial disparity analysis of traffic stops, for example, looks at a variety of the dimensions across

the data. From the initial stop decision, the initial disparities potentially and who is stopped, to a variety of post-stop outcome, some of which Dr. Coston spoke to in his report.

But, in a much more in depth and more sophisticated way that considers not just two variable together, but multiple variable, multiple inputs where we take account for and control for as many of the known variables that are the variables that are known to influence the outcome where we control for those in a multivariate progression model typically. And then if you have a situation where you have multiple indicators that align so there are disparities in the traffic stop data itself applying the best available benchmarks that we have for estimating the driving population, and you have disparities in post-stop outcomes, after taking into account all of the relevant variables that potentially could influence those outcomes, when those factors align. Then as a social scientist and as a police researcher who is often times asked this question by policymakers, I get closer to being able to be comfortable in saying you have a problem.

BY MR. GIBBONS:

Q Dr. Smith, you talked about the importance of

controlling for other variable in order to determine if this initial statistical disparity actually means there is bias present. Can you offer an example of where there existed statistical disparity after controlling for that disparity disappeared?

A Yes. Let's take arrest as an example.

So it's not uncommon in the peer-reviewed literature to find, for there to be findings in these kinds of post-stop analyses that minorities, African-American and/or Hispanics, are arrested more often than whites. That is a common finding.

And if do just a basic bivariate analysis you cross, you know, the outcome, arrest, no arrest, with race, you know, black or white, you often times find disparity. That is what I alluded to earlier as an intermediate stop in the analysis. That, you know, the better quality studies that either I have done or I am aware of don't stop there. They go on to engage in regression analysis where we look at a variety of independent variables or factors that may contribute to that arrest outcome; that are known from either the theoretical literature or from the empirical literature to predict that outcome, and we control for those, statistically a regression equation, so that we can isolate the effect of race by itself independently of

those other factors.

So I mentioned that at one point in my career I worked -- I did, I was part of the analysis team that analyzed the data from the Los Angeles Police Department during the time that it was under a consent decree with the United States Department of Justice for potentially biased policing, among other things.

So, the team that I was a part of, and I was the chief methodologist for that team, were hired by the City of Los Angeles to analyze its data in response to the requirement that it do that from the consent decree. So we analyzed nearly a million records, more than a million as I recall now, traffic stops in Los Angeles over a period of years.

And one of the findings initially, one of the bivariate findings was exactly what I said. That minority, minority drivers in L A are more likely to be arrested by the LAPD than non minority drivers. When we controlled for the appropriate variables in the regression equations those disparities disappeared.

The variable that made the most difference, there were a couple, but the one that made the most difference was controlling for whether the driver had a warrant on file when he or she was stopped. So, if the police stop a driver and they run that individual's

information through NCIC or the state level equivalent and the driver comes back with a warrant for that individual's arrest, that is virtually a non discretionary arrest on the part of the officer. The officer will always, almost always make that arrest. So if you have one racial group with more warrants on file than another racial group and you don't control for that then you will reach a spurious conclusion based on the bivariate analysis that you have just run that African-American drivers or Hispanic drivers are more likely to be arrested.

THE COURT: Well, arrest. There are a lot of things that come into play in a multicultural society. So for instance in my neighborhood if you wanted to arrest young men, if you wanted to stop young men between 18 and 24 you could just drive around in your police car and eventually you would see dozens of little cars with no mufflers. You would -- all of those people, everybody that drives them commit some sort of offense sooner or later. And you just follow that car and you would stop it you could arrest 77 percent of the people that you wanted to between the ages of 18 and 24. That kind of cultural bias exists in, I am sure, in African-American drivers as well. You can identify -- you can use proxies for race and

identify people.

Do you agree with that?

THE WITNESS: Yes.

THE COURT: So how do you -- and yet that would come through in your regression analysis as, well, you stopped somebody because the car had no muffler, or stopped somebody because they didn't signal a turn. How do you deal with that?

THE WITNESS: So, thank you. A good question.

So, I mean you do that in regression model by controlling for the reason for the stop and the seriousness of the offense. So those are the proxies that you have just identified. So you control for equipment violation stops, for example. If the outcome of interest is was the person arrested, or were they given a ticket, you control for the reason for the stop and you control for the seriousness of the offense. So it matters, for example, if someone is stopped for going five miles an hour over the speed limit there is a qualitative difference between that and someone who is driving 25 miles over an hour over the speed limit. So ideally you want to control for those two factors when you predict whether race in those factors continues to predict the outcome of interest, whether it is a ticket or physical arrest or search.

So, what we have done over the years, 20 years of science, is we have gotten better at this, and we have been able to through, this is how science proceeds, right, in any field? You know, when I did that first paper in 2000 there was virtually no literature, no road map. Now there is. There is a detailed road map of the kinds of things that you should consider and control for in a regression model when attempting to predict what the coming outcome of interest may be.

There is very voluminous scientific literature on that now that emerged in the last 25 years. So that is what we do, Your Honor. The best studies have those data, and they control for those proxies, as you put it, before reaching a conclusion that there are disparities or no disparities in the outcome of interest.

THE COURT: All right. Go ahead.

BY MR. GIBBONS:

Q So am I understanding that answer correctly to say that if race was the true reason for the stop and there was a pre-textual reason for the stop that was offered, over a time using a sophisticated regression model that evidence of the racial bias would emerge from that regression model?

A You could, you know, when you have the correct

variables in a model -- again this goes back to the earlier question -- you can begin to rule out alternative hypotheses for the disparity in the outcome that you see. That is basically the whole exercise. It's not enough from a causation standpoint to say two variables or correlated with one another. That is just step one in the causation stream.

What is also needed is, and what is crucial, is to to be able to rule out that there are not other variables that are also causing the outcome. We call that, you know, exogenous or spuriousness. You have to be able to, in order to reach the conclusion that A causes B you have to know that A and B are correlated. You have to know that A preceded B in time. A occurred before B.

And you have to know that there are not other, these other variables that may also be at work, like for existing warrants on file, for example, that aren't being considered, or you have to consider those and control for them in order to reach the calculation that A caused B.

THE COURT: All right.

Are we a good spot to stop?

MR. GIBBONS: I was just going to suggest that.

THE COURT: When we get back I hope we will focus

in on Dr. Coston's study specifically.

MR. GIBBONS: We have bounced around. I will try to narrow it down.

THE COURT: I apologize for causing that. All right, let's take a break. Thank you.

(A recess was taken)

THE COURT: All right.

Resume your questioning of Dr. Smith.

BY MR. GIBBONS:

Q Dr. Smith, I would like to very briefly talk about police deployment matters and then turn to Dr. Coston's analysis. How do police typically deploy patrol officers?

A In most urban areas this is done based on two factors, crime and calls for service.

Q What do criminal justice researchers know about the incidental ratio effect of these police employment patterns?

A Well, the reality in the United States is that race and crime calls for service are often correlated.

Q And then how do you do criminal justice researchers view the instances of race versus crime and calls for service in --

THE COURT: When you say they are correlated, tell me what you mean by that in terms of African-Americans.

THE WITNESS: So, if the police in most urban areas in the United States are deploying officers based on the crime and calls for service in particular precincts or areas of the city, those areas of the city, it is not uncommon for those areas of the city to also be disproportionally populated with minority citizens. And so the end result then often times is that there is a higher concentration of police officers in minority communities than there are in majority white communities.

THE COURT: So here is the thing that I find interesting about all this.

You could probably, do you know of an area of Richmond called Windsor Farms?

THE WITNESS: Yes, sir.

THE COURT: You could probably drive around Windsor Farms at 70 miles an hour and never see a police officer because it's all full of rich people, and I don't imagine there is much crime, or if there is everybody has their own burglar alarm. Contrast that with Highland Park. If you drove 70 miles an hour through Highland Park you would be stopped in a heart beat because there are police everywhere over there. So my question is this. The fact that there is police everywhere means there is more arrests. So it feeds

itself in this sort of a never-ending cycle with, if it is legitimate -- and I am not saying it's not -- to send police where the crimes are. Where you send more police you find more crime.

THE WITNESS: Well, I would actually dispute that. Crime is a social fact that is out there. I think when you send more police to a neighborhood and you give them, than in another neighborhood, and you give them the mission to go find crime, then they will do that. And they will make more arrests. But arrests are not a measure of crime. Arrests are a measure of police activity. Crime is a social phenomena that occurs with or without the police being present.

Now, we know from the social experiment that the country has just gone through that what happens when police disengage, or when, and when police departments are at half their strength, there is a long history of that, but most recently there is certainly a correlation between violent crime, for example, and lack of police. But, police don't cause crime. Police uncover crime. And the arrests are a measure of police activity, they are not a measure of crime.

THE COURT: Okay.

So a measure of police activity. And if you send police to where there is more crime there is more

police activity and therefore more arrests?

THE WITNESS: Yes.

THE COURT: So if you send police to areas that are -- if we are correct in assuming that there is more crime in African-American areas of town, and you send more police there, there will be more traffic stops there. It is inevitable.

THE WITNESS: Yes. So that is a --

THE COURT: So the question then is whether that is a sign of bias or a sign of responding to a social need.

THE WITNESS: Yes, sir, but -- that's right, but what it also tells us is that that is why the census can't be used as a benchmark for traffic stops.

THE COURT: Right. But what that -- but if the City assigns more police officers to Highland Park, I mean, two results that come from that. People in Highland Park, which is a predominantly African-American area, deserve to have lives that are free of crime. They deserve to live in a safe community. So they send police over there. But they also deserve not to get an inordinate number of tickets.

THE WITNESS: This is the great debate going on right now in the wake of George Floyd is exactly this

issue. How do you deploy police officers from a policy perspective to control increasing levels of violent crime while at the same time not over-policing a community, particularly a community of color since violent crime tends to be concentrated where poverty exists, and poverty tends to be correlated with race.

THE COURT: There is an interesting book called Locking Up Our Own. It deals with the phenomenon, among other things, of mandatory sentencing, and how those things come about from purposes that are good to results that are bad. And I don't know how you separate that out.

Well, I'm sorry. Go ahead.

BY MR. GIBBONS:

Q That is the work of a social scientist is to separate out the different effects of police deployment patterns underlying crime rates, calls for service and also race?

A To the extent that we can, absolutely.

Q What can a researcher say about individual stops with a city-wide statistical analysis?

A Can you rephrase that question?

Q Can anything be said about individual stops using a city-wide statistical analysis?

A I think if I could extrapolate on your question,

if you are asking me can we conclude that there is racial discrimination in an individual stop based on aggregate analysis the answer is no.

Q Turn now to Dr. Coston's analysis specifically with regard to the mapping techniques. How would you describe how Dr. Coston visualized whether traffic disparities are caused by race as opposed to other causes?

A Well, you know, Dr. Coston overlaid the incidents of traffic stops on a map that included some color-coded indicators for where people lived by race in Richmond.

Q What is the distinction between Dr. Coston's use of heat mapping versus census data?

A The census data is the underlay, underlay of the map. It is -- that is the racial characteristics of the neighborhoods are driven by the American Community Survey that he used.

Q What are the problems with Dr. Coston's use of heat mapping to determine whether there are racial disparities in policing?

A Because it is essentially using data as your benchmark for traffic stops. We talked at length this morning, that is not appropriate, not an appropriate benchmark to use residential census data as a

comparator against traffic stops.
Q How does Dr. Coston rely on the definition of "predominant populations of minorities" in conducting this heat mapping analysis?
A I don't really know the answer to that question.
Q Why don't you know?
A It's not really clearly defined in his report what the racial percentage composition is in each of the color coded regions on that map.
Q Does Dr. Coston consider whether racial disparities are caused by any other factor other than race?
A Well, not in that analysis, because it is just a simply bivariate analysis.
THE COURT: But does heat map look at -- go ahead. I am sorry.
BY MR. GIBBONS:
Q What does the failure of Dr. Coston to determine an appropriate benchmark mean about the ability to make inferences about racial bias?
A You can not make inferences about racial bias in traffic stops when you compare it to the census, residential census population of a region. That is inappropriate to do.
Q You were present for Dr. Coston's testimony

yesterday, correct?
A Yes, I was.
Q And you were present Dr. Coston's criticism of your 2001 or 2000 paper using the RPD data. How do you respond to those criticisms?
A I didn't really hear it as a criticism. He raised the question of why in one of the regression models or pointed out that in one of the regression models I had used race as the dependent variable in one of the models. You will hear criticism, but I did hear him say that is not typically done. And I would agree with him, that is not typically done.
Q And knowing what you know now would you perform that same research and statistical design the same way you did way back in 2000?
A Probably not, but again, there was no road map back then, right. And we were developing the science as we went along. And also, I would say also, there is many examples in the published literature of researchers using race as a dependent variable. It is not mathematically wrong to do that. Kroger and Ridgeway's seminal article on, that appeared in the Journal of the American Statistical Association, for example, on which it was founded the whole science of veil of darkness used race as a dependent variable in

his regression equation.
Q What conclusions can be drawn from Coston's use of chi-square analysis?
A You can conclude the two variables are related to one another, that they are correlated. There is an association between them.
Q What conclusion does --
THE COURT: Wait a second. Let's put that in English. What can you conclude?
THE WITNESS: That the two variables are related.
THE COURT: Two variables are African-American people getting stopped.
THE WITNESS: Well, the chi-square analysis had to do with outcomes, like arrests or citations or warnings, for example --
THE COURT: Well, didn't he also look at just plain stops?
THE WITNESS: Not using chi-square.
THE COURT: Okay.
BY MR. GIBBONS:
Q What conclusions about causation can be reached from the chi-square analysis?
A There are no conclusions that can be reached reliably.
Q What is the statistical technique, very briefly,

called Cramer V?
A It just a test for the strength of the relationship in a chi-square model.
Q What conclusions about causation can be drawn from the use of Cramer V?
A Same answer. None.
THE COURT: What if it was a higher degree of correlation? What if 90 percent of the traffic stops were African-American? Could you reach a conclusion based on that?
THE WITNESS: No. Not when the -- so, just to be clear, the chi-square analysis Dr. Coston performed, the analysis from what I can tell was done appropriately. He talked, or Dr. Coston talked about the underlying assumptions that are required for each of these statistical tests, and that is exactly right, there are a number of those. He talked about the minimum cell values and such, and the fact chi-square is appropriate when you have two variables, race and arrests, or race and search, that are categorical in nature. Either you are black or you are white, you were searched or you weren't. That is four-by-four or two by two table, four cells.
So, you know, that is all appropriate to do that sort of preliminary analysis to see whether or not

there is -- is there anything going on? Is there a relationship between race and arrests at all? We have got to start somewhere. So one place --

THE COURT: What if all the people who were arrested were African-American? What would you conclude from that?

THE WITNESS: I would concluded nothing unless I knew that --

THE COURT: Okay. Thank you. That is all I need. Thank you.

BY MR. GIBBONS:

Q Just to follow up on that question, do you need to know the appropriate benchmark before you could make any conclusions about the raw statistical disparity, correct?

A In the case of stops, yes. In the case of an arrest outcome, for example, you would need to know the factors other than race and arrest that were driving that outcome. And there could be none. But you wouldn't know that unless you controlled for them in a multi variate model, or there could be legitimate ones, like a hundred percent of the African-Americans that were arrested had pre-existing warrants on file and therefore every one of them were arrested. But you wouldn't know that based simply on a chi-square

analysis with race and arrest.
Q Is it generally accepted in the field of racial disparity research to make inferences of bias based solely on the chi-square test?
A No.
Q Is it generally accepted in the field of racial disparity research for researchers to ignore the presence of concinnity variables?
A No.
Q Is ignoring the presence of concinnity variables a reliable method of conducting scientific research in the field of racial disparity research?
A No, it is not.
Q Is it appropriate for Dr. Coston to make conclusions about race affecting stops based on the available data that they used?
A No, it's not.
Q Same question, but for arrests?
A No, that is not appropriate. Without controlling for these other factors that also impact the arrest outcome.
Q Same question then for searches?
A Same answer. We haven't talked much about searches. But just as with arrests there are a number of known factors that contribute to search outcomes.

For example, if someone is arrested, physically, custodially arrested, they will almost always be searched. So unless you parse out of your data searches based on arrest then you will reach a potentially reach a spurious conclusion that race and search are inappropriately, or discriminatorily related when in fact they would simply be a function of the fact that more persons of one race were arrested and therefore searched than persons of another race. So we always control for the nature of the search, the type of search that was conducted when we do search analysis. And that wasn't done in this case.

Q Specifically with respect to Dr. Coston are you familiar with the scientific literature about racial disparities?

A I am.

Q There is a community of researchers within the field of racial disparities?

A In police outcomes, yes, that's correct.

Q How long have you been a part of that research community?

A From its inception. For more than 20 years.

Q Are you familiar with Dr. Coston as a member this research community and racial disparities?

A No, I am not.

Q Ever heard of Dr. Coston before you were retained in this case?
A I have not.
Q Have you ever read an article in which Dr. Coston has written by about racial disparities?
A Not that I recall, no.
Q Based on your experience in the field of racial disparity research, what are, again, your general opinions on Dr. Coston's analysis?
A The ultimate conclusions that he reaches at the end of his report, which are that race influenced the decision to stop and the outcomes that resulted from that stop, cannot be reached with the data that he had available to him and the analysis that he performed.
Q No further questions, Your Honor.
THE COURT: All right.
Cross examination?

CROSS EXAMINATION

MS KOENIG: Just a minute to set up here, Dr. Smith.
THE COURT: Take your time.
And the reason you can't reach that conclusion is because he didn't count all the other variables you would look at in a regression analysis?
THE WITNESS: That's correct, Your Honor. Which

we know empirically affect the outcomes.

THE COURT: All right.

BY MS KOENIG:

Q Okay.

Still morning. Good morning, Dr. Smith.

Let's talk about the data in this case.

Did the Government provide you the spread sheets of the raw data in the case?

A No.

Q So you have not looked at any of the data underlying Dr. Coston's opinion?

A I have not.

Q You said you were retained, right?

A Yes, ma'am.

Q How much are you being paid?

A $450 an hour.

Q How many hours have you worked on the case so far?

A I don't know, but I billed around $6,000 prior to this trip.

Q Okay.

THE COURT: How much per hour?

THE WITNESS: 450.

BY MS KOENIG:

Q You talked about that you had been, you have been trained to do chi-square analysis?

A I have.
Q You talked about using chi-square analysis as a stepping stone, right?
I an see you shaking your head. You have got to say yes or nor.
A Sorry. Yes.
Q That is okay. You have to make a record.
So, when you said that the stepping stone, like if you have an indication of statically significant evidence of disparities, or that there are measurably worse outcomes for particular races, you could use chi-square analysis and then you would go get more data, right?
A Yes, or you would -- you may have that data, so --
Q Or you would look at the data you already have or you could use that to go get more?
A Do further analysis with data you already have or if you didn't have that data you would ideally attempt to try to find additional data that would allow you to do more sophisticated analysis.
Q Like individual reports for each stop, right?
A Well, that is typically not how you get data from police agencies. You don't typically get individual reports of stops.
Q What would you get?

A You would get data files, you might call raw data. That would include fields, the fields of interest that would inform the analysis that you did.

Q That wold presume that the police kept that data, right?

A Absolutely.

Q Do you know if in this case that the Richmond Police Department provided any of that more contextual data?

A I do not know.

Q Did ask you for it?

A I did not.

Q One of the main critiques of Dr. Coston's report that you have is that Dr. Coston did not evaluate other variable, such as whether the driver had an outstanding warrant, the reason for the search and driver behavior, demeanor, right?

A Yes.

Q And did you have any data on how many drivers in this sample had outstanding warrants?

A No.

Q Did you ask for it?

A No.

Q Did you have any data on the reasons for searches in this sample?

A No.
Q Did ask you for that data?
A No.
Q Did you have any data on driver behavior or demeanor of the drivers in this sample?
A No.
Q Did you ask for it?
A No.
Q Okay.
Let's talk a bit about the 2001 study. If you look in the folder in front of you and turn to defendant's exhibit seven.
A Sorry. Did you say seven?
Q Seven, yes.
THE COURT: Do you have the book?
MS KOENIG: Yes, he does, Your Honor.
THE WITNESS: I am there.
BY MS KOENIG:
Q You talked a couple of different dates and I want to make sure we are all talking about the same thing. Early on in your testimony today you said that your 1999 paper that came out in 2000 was one of the few peer reviewed articles on racial disparity; is that right?
A Actually 2001.

Q I wanted to make sure we were looking at the -- the article you are referring to is the same.
A It is the same paper.
Q Okay. We can't talk over each other.
So, when the article that you are looking at in defense exhibit seven, that is the same article you were referring to?
A Yes.
Q Okay.
So in that article, the study that you did was based on six weeks of data from February to March of 2000 right?
A Yes.
Q That data was collected with the cooperation of the Richmond Police Department, right?
A They collected the data and provide it to me.
Q But you helped to kind of set it up, right?
A Actually didn't. I was not involved in the decisions about what type of data collection to collect or what fields to collect. I wasn't involved in that.
Q Okay. Then when the information was being collected supervisors from the Richmond Police Department had had meetings with their line officers about the data collection, right?
A I presume that is true.

Q Well, we don't have to presume, right? We can look at your article. So let's look at defendant's exhibit seven. Specifically look at page, Page ten and 11.

A Okay.

Q When looking at the bottom of page ten going on to 11, you said in your report, right, that in this case the Richmond Police Department made a good faith effort to assure officers that the information reported would not be used against them for disciplinary purposes, right?

A Yes.

Q In fact, the chief of police and the department attorney met with all patrol roll calls before the study began to explain its purpose and allay any fear that the data would be collected or that the data collected would be used to target individuals for punishment --

A Correct.

Q -- is that right?

A Yes, that's correct.

Q All right.

Despite all that, right, the officers knew they were being monitored. And there was 64 percent compliance rate, right?

A Yes, I believe that is correct.
Q And surely the supervisors from the Richmond Police Department given that the police department's chain of command could have enforced compliance, right?
A Well, to the extent police departments are paramilitary organizations and, you know, there are orders that come down and the people who are below those that give the orders are, you know, normally expected to follow them. It doesn't always mean that they do, but certainly that is how the organization is to function if it is functioning optimally.
Q All right.
Let's talk about a couple of things that you have noted in your report from 2011. On page 11 you talk about whether there is an expectation black drivers commit more traffic infractions that white drivers and vice versa, right?
A Okay. Yes.
Q And you specifically noted that although it is possible that minorities commit more traffic infractions per capita than white, thus helping to explain the higher minority stop rate, this possibility appears unlikely. Right?
A Yes. So let's talk a little bit it yesterday. There is some research that has been done on this

question, limited, some after this article came out, too, by the way, that looked at that specific question and found some evidence that there are differences in the way racial groups violate traffic laws. So, it is, I would characterize that research as sort of mixed bag at that point.

Q You don't have any information showing that the drivers in Richmond in 2020, the black drivers committed more traffic infractions than white drivers, right?

A I do not have that information.

Q Let's talk about direct field observations. Have you ever conducted a direct field observation study?

A Well, yes, I helped oversee one.

Q How many?

A One.

Q When was that?

A In the early 2000's in Miami Dade County, Florida.

Q How long did that take?

A The actual field observation portion, probably several months.

Q How much did it cost?

A I am not trying to avoid the question, I just don't know how much. I can hazard a guess. Maybe $30,000.

Q Okay.

You have indicated, I think you testified on direct examination, that because of the cost and amount of time that it takes to do direct observation only a few studies, relatively few studies have used direct observation, right?

A That is right.

Q All right.

All right. Veil of darkness benchmark. Let's turn to that. You need to know what time of day the stop is made, right?

A Yes.

Q Are you aware that the defense asked for that data and the Richmond Police Department did not provide it in this case?

A I heard that yesterday. I was not aware until yesterday.

Q Did you ask for that data in this case?

A I did not.

Q Talk about the crash data benchmark. You explained that a little bit on direct examination. Do you have the crash data report for Richmond from July 2020 to December of '20?

A I do not.

Q Did ask you for that data?

A No.

THE COURT: Why didn't you look into all that? That would have helped to do a pretty decent study that night help the Richmond Police and help The Court and help everybody.

THE WITNESS: Just beyond the scope of my engagement with the Government. My engagement revolved around the methods that Dr. Coston used and the problems with it.

THE COURT: So you were hired essentially to poke holes in the defendant's theory, not to poke holes, but to point out problems with it and not no come up with an analysis of data yourself.

THE WITNESS: That's correct, Your Honor.

BY MS KOENIG:

Q Dr. Smith, you would agree that cluster maps and heat maps can be a useful technique for visualizing the spatial distribution of events in a city?

A I would agree.

Q And you have criticized Dr. Coston's overlay of black drivers over the racial composition of Richmond neighborhoods as merely a rudimentary type of census based benchmarking?

A Right.

Q Did you hear Dr. Coston testify yesterday that

there was not a benchmarking that was used in that analysis, it was simply a visual representation?

A I heard him say that, or Dr. Coston say that, yes.

Q You talked a little bit with the Government about what it means to be predominantly a specific neighborhood?

A Yes.

Q Look at -- I would like to put this up on the screen, please, defendant's exhibit R 2 that had previously been admitted at an earlier hearing.

So, Dr. Smith, you heard yesterday, right, that the University of Virginia racial dot map for the country is based on the 2010 census data?

A Okay. Yes.

Q Did you know that before you came yesterday?

A No. I have never seen this before yesterday.

Q Okay. So, when you are looking at this map you can see that the black residents are in green, right?

A Yes.

Q And that the white residents are in blue, right?

A Yes.

Q So when I look at the neighborhood in Richmond it's not really that areas are predominantly one race or another, right, it is almost that a neighborhood is entirely black or entirely white according to this

information, right?
A In some cases that is true. In some neighborhoods that is true.
Q All right.
So you don't use the University of Virginia Racial dot map in any of your other work that you have ever done?
A No.
Q Let's talk about your report, which is Government's exhibit two. Do you have that in front of you? It's not in that folder. We can pull it up.
Do you have copy of your report with you?
A No, I don't.
Q If we could switch to the other screen, by chance. Thank you.
Let's turn to page four, please. Dr. Smith's report.
Dr. Smith, do you remember writing in your report that one might logically expect, for example, that clusters of stops of black drivers might occur in such transitional zones as black drivers commuting from where they live, may live, to where they may work along major thoroughfares?
A I do remember writing that, yes.
Q Are you aware that many white people in Richmond

that live south of the river and in west end of town travel to downtown to work?

A I would presume that is true.

Q So if we use the same kind of assumption that you just made about black drivers, wouldn't you expect to see clusters of white drivers in areas where they work, such as the first precinct?

A Yes, that is why traffic information is necessary to benchmark against stops.

Q Yet we have no clusters of stops of white drivers outside a hand full of clusters in the third precinct, right?

A I don't -- I don't know. I mean, I would have to --

Q We can look at Dr. Coston's report. If we could switch back to that.

Let's look at figure two of Dr. Coston's report.

We don't see any cluster of white drivers outside of the third precinct in Richmond, right?

A Part of the problem I am having is precinct numbers.

Q Okay. It has been a little while since you were a police officer?

A The precincts were numbered differently then, too.

Q So if we have the third precinct is the large

precinct that covers the area that says Stratford Hills?
A Yes, far left of the map. Right.
Q Yes, that is third?
A Yes.
Q All right.
So we don't see any clusters of white drivers outside of a hand full of small ones in the first precinct, right?
A So I see three clusters of white drivers in the third precinct. And that is why what I see. And they are smaller, which you would expect because there are fewer stops of whites than there were of African-Americans.
Q All right.
A So the dots are smaller.
Q So when we talk about deployment patterns in the City, looking at a map of the precincts that are out laid, do you have any information as to why Richmond Police Department has three of its police precincts in the black areas of town and just one in the white area of town?
A I don't know why. I can --
Q I won't ask you to speculate. You don't have any information, is that right?

A No, I don't.
Q All right.
Let's also look -- in your report you indicated -- and this is on pages four and five of your report -- if we could go back, Ms Dandridge and Ms Tuck, please.
Pages four and five of your report, going from the bottom of pages four and five, you talked about how there may be some other explanation as to why arrests may be higher for certain drivers than others, right?
A Yes.
Q And one of the examples that you gave was if drunk drivers were involved because drunk drivers would be more likely to be arrested than somebody like a speeder, right?
A Correct.
Q Okay. So do you have any information about how many drunk driving stops were in this sample?
A I do not.
Q Let's look at -- and switch back to me if that is okay -- let's look at defendant's exhibit 14, which is the raw data in this case.
So Dr. Smith, I want to show you what we see at the top in column J, not column J, column Q. Do you see it says specific violation about column Q -- in column Q?

A Yes.
Q You see there is a series of numbers that are listed below there?
A Yes.
Q Now, Dr. Smith you have a law license, right?
A I do.
Q You have been admitted to practice in Virginia since 1998, right?
A Yes.
Q And you have been admitted to practice in the Fourth Circuit since that same time, right?
A Yes.
Q Before you were admitted to practice in Virginia you had to take the bar exam, right?
A Sure did.
Q And before you took the bar exam you had to learn sufficient information about Virginia code, right?
A Sure. Yes. I am familiar with 46 Code of Virginia.
Q Okay. Also title 18.2 of the criminal code of Virginia, right?
A Yes.
Q Great. You know that Virginia code section 18.2 dash 270 and 18.2 dash 266, those are the drunk driving codes for Virginia?

A I don't recall the exact statute subsections of the statute. I will take your word that is true.
Q All right.
So how many violations for drunk driving are listed in the stops in this sample?
A I don't know that.
Q But would it surprise you to find there are just ten violations for drunk driving listed?
A No, I guess I wouldn't. Not surprise me.
Q For the record I will put on control numbers 150, 151, 152, 944, 1046, 1168, 1387, 1388, 1652, and 2551. So, that information if we were to look at it, would it surprise you to find that there are six black drivers in that information, two white drivers, one Asian driver, and a person of unknown race?
A Would it surprise me?
Q If that is what the data showed.
A No.
Q Okay.
One black man issued a warning, and all others were arrested. Would that surprise you?
A No.
Q So, if we have a total of seven arrests then, five torr black drivers and two for white drivers, right, and Dr. Coston reported a total of 164 arrest that are

made, did you run an analysis to see if those seven arrests for drunk driving impacted the overall analysis of Dr. Coston's findings?

MR. GIBBONS: Objection, Your Honor.

THE COURT: I can't hear you.

MR. GIBBONS: Objection. This whole line of questioning, he said he hasn't reviewed any of this data.

THE COURT: Well, we hasn't reviewed any of the data, that is true, but go ahead. Overruled.

BY MS KOENIG:

Q You didn't run any analysis to see if the drunk driving arrests impacted the findings, right?

A No.

Q Right. And fair to say drivers with outstanding warrants are more likely to be arrested, right?

A Yes.

Q Did the Government provide you any information about how many individuals in the sample were arrested based on outstanding warrants?

A No.

Q Did ask you for that data?

A No.

Q Without that data you can't quantify whether or not that has any impact on your overall finding in this

case, right?
A In this particular case, no.
Q You also said that researchers must control for no discretion searches, like inventory searches?
A Correct.
Q An inventory searchers generally have to be conducted pursuant to specific department policy, right?
A Yes.
Q Not only are you a trained lawyer, but a former Richmond Police officer, right?
A Yes.
Q Were you a police department officer anywhere else besides Richmond?
A Fairfax.
Q How long were you an officer in Fairfax?
A About two years. Little over two years.
Q How long were you an officer in Richmond?
A A little under two years.
Q Okay.
So, you know generally because of your work and experience that generally a car has to be impounded before an officer can do an inventory search, right?
A Yes.
Q In the traffic stop, that is going to happen most

of the time when the driver is arrested and nobody comes to up the car, right?

A Sorry. Can you rephrase that more, or ask it again?

Q Most of the time when an officer is going to impound a car it is when somebody, the driver is arrested and nobody else can come pick up the car, right?

A That is often the case, yes.

Q Do you have any data about how many cars in this sample were searched pursuant to inventory searches?

A I do not.

Q Did you ask for it?

A No.

Q You talked also about, in your report about a 2015 case from North Carolina, right?

A Yes.

Q The Johnson case, right?

A Yes.

Q The Johnson case involved, involved an agreement between the local county sheriff's office and the federal government to allow the local county to enforce immigration laws, right?

A I believe that is right.

Q That's what we call 287 G agreement, right?

A Correct.
Q So, the Department of Justice brought a case against that particular county in North Carolina, right?
A Yes.
THE COURT: Alamance County?
MS KOENIG: It is, Your Honor.
BY MS KOENIG:
Q Alleging that that particular county had engaged in discriminatory practices?
A Right.
Q In that case the expert, the Government had experts and respondents or the defendants had experts, too, right?
A Yes.
Q And the experts involved, you know, offered competing analyses, right?
A Yes.
Q And the judge in that case, in that case found that the Government in that case, the plaintiff, right, the Government, the Department of Justice, their expert had had access to data that would have controlled for certain variables, right?
A I don't recall that level of specificity in terms of the facts of the case.

Q Do you recall then that the judge in that case found it very significant in the judge's findings that because the Government, the plaintiff's expert, had had access to that data but simply failed to analyze it, that that was a very significant piece of the judge's ruling?

A I don't recall that from the opinion.

Q All right.

On direct examination you talked about, in your conservative practice in analyzing data fields if you have an entry that any piece of the data is missing you simply omit that entry altogether?

A Yes.

Q Is that a common practice in other fields, like the medical field, when they are analyzing large volumes of data?

A I would say a common data management practice in any sort of statistical analysis regardless of discipline.

Q Including market research?

A If it is done by academics. I can't speak for what industry does.

Q Including survey data, social survey data?

A Again, if it is done by academics.

Q Do you have any percentages of the missing amounts

of data in this case?
A I do not.
Q Did ask you for that?
A No.
Q Do you need benchmarking to analyze whether people are treated differently after they are stopped?
A No.
Q Is it feasible to control for every possible variable?
A No, not feasible to control for every possible variable.
Q You talked on direct examination that you have done, you know, examinations of large scale data sets in agencies around the country. Did you ever do any of those in context of a criminal case?
A No.
Q You talked a little bit more, when talking about state-wide analyses of data, right, like the Virginia Community Policing Act, I think you said that you were familiar with that?
A Generally, yes.
Q All right.
So the Virginia Community Police Act was designed to collect data to see if there is evidence of racial profiling, right?

A Presumably, yes.
Q They ask, not only requires the collection of data, but it requires the analysis of the data right?
A Yes.
Q So when you were talking about state-wide collections of data and how it can be difficult, you talked about disparities among different police departments and different resources that they may have access to?
A Yes.
Q The Richmond Police Department is not a mom-and-pop police department?
A That's correct.
Q When you are talking about Dr. Coston's report you made a lot about whether or not causation can be in inferred -- and you can look at defendant's exhibits two here if it helps refresh your recollection, specifically the last page before the references. The last paragraph of the conclusion section.
A Yes.
Q Do you recall then that Dr. Coston said, while this report cannot say whether a specific traffic stop was the result of racial bias or racial profiling, this report does conclude that race is a significant factor in the decision to stop a driver, whether a person or

vehicle is searched, the outcome of the stop, and the location where stops occur, right?

A I recall that sentence, yes.

Q Are you taking issue with that? Do you think that is not true?

A Yes, I take issue with that.

Q All right.

I will follow up on a series of questions the Judge was asking you. If all of the drivers, if the data showed in this case that 90 percent of the drivers that were stopped were black, and ten percent were white, that would not be significant, that would not be a significant factor in the decision that race played a significant factor in the decision to stop a driver?

A Not without knowledge of who is driving and available to be stopped.

THE COURT: Without knowledge of what?

THE WITNESS: Who is actually driving on the street and who is available to be stopped.

BY MS KOENIG:

Q If the evidence in this case had shown that it was 90 percent of the arrests were black individuals after a traffic stop and ten percent were white, would you also say that is not a significant -- that race does not play a significant, a factor in whether to arrest

someone?
A By itself that statistic is not helpful.
Q If you were to see data that said that 90 percent of the people in the cars were searched were black, and only ten percent white, again you find that not significant?
A By itself. Correct.
Q So let's talk about that.
So, you talked about how you have done several of these studies. And I think I heard you say, but I want to make sure I heard properly, that you have, you would never find, you as careful researcher would never find that racial bias played a causal role in a pattern of policing?
A That's correct.
Q Never?
A Social scientist. No.
Q You don't think any social scientist would ever say that?
A I am sure some would. I would not.
Q All right.
So you have never said that then, right?
A No, I have not.
THE COURT: Well, so then if you don't reach a conclusion like that, when you get hired by a locality

to help them out, of what assistance are you?

THE WITNESS: Well, Your Honor, I hope we are a lot.

THE COURT: I mean, you obviously have a lot of knowledge in this area. But if they are trying to figure out whether bias is a factor and how their police officers do things, and you are never willing to make that conclusion, even if a hundred percent of the arrests are of African-Americans --

THE WITNESS: Well, earlier --

THE COURT: -- how does that help them?

THE WITNESS: Sorry.

THE COURT: Go ahead.

THE WITNESS: Earlier I spoke about the convergence or the alignment of findings with respect to the various multiple kinds of analyses that go into a major study of the type that we are sort of talking about.

And the extent to which those observed disparities, after controlling for appropriate factors that might explain them, when those observed disparities remain, we call those unexplained, unexplained disparities, meaning we have controlled for all -- all relevant variables available in the analysis and there remains disparities, and if those disparities

align across multiple indicators, so, you see it in stops, you see it in arrests, and you see it in searches and so forth, I testified earlier that that begins to suggest to me that you have a problem. You, the police department, has a problem.

THE COURT: And the problem is bias.

THE WITNESS: The problem is potential bias of one kind or another. You know, that doesn't necessarily mean racial animus, but it could be a variety of things that are probably not healthy. So, I worked on projects where I certainly found evidence of that sort of alignment across multiple indicators controlling for all the appropriate variables. And I worked on projects that, where we didn't find that sort of alignment, right.

THE COURT: So then what do these localities do after they get your analysis? They do training to make sure that the police officers follow proper procedure?

THE WITNESS: So typically our reports will include a series of recommendations. Depending on the findings, of course. It is not uncommon for those recommendations to include training; not uncommon for those recommendations to include better data collection, because there are, it is often the case that, particularly if the agency developed its data

collection regime without the assistance of people like me, that they will, they won't be capturing the kind of information that they need to be capturing in order to answer more definitively the question that you asked. So a lot of times the recommendation is you need better data and here is how to collect it better. Here are the fields that you need collect, or here is the process you need to put in place. So there are often, again, a series of recommendations that follow the findings.

THE COURT: Thank you.

BY MS KOENIG:

Q All right.

So when you are making those recommendations, you talked about training and making recommendations for training that would often include training about how to treat people of different races more equally, right?

A Yes, I think that is fair, yes.

Q And I want to talk to you about how on earth we would control for some of the factors that may exist in Richmond. How do we control for the fact that neighborhoods have been segregated in Richmond for over 150 years?

A Well, it is not a matter of controlling for something like that. I think the issue is

understanding that distribution, well, maybe that isn't fair. So we might actually control for that.

Q How would you do that?

A So you would have, you would get block level -- depending on what your unit of analysis is, you may get block census data, for example.

Q And you would use census data to do that?

A Or neighborhood control. Right. To understand the racial composition of the neighborhood and how that may influence the outcome of interest, as one of a number of factors.

Q How would you control for three quarters of the police precincts being devoted to black parts of town, and just one being devoted to a white part of town?

A That is potentially a deployment issue. And so you control for that in a number of ways. One way is to examine each of them independently of the others. Another way is to actually, if you had actual deployment data, so you knew, for example, how many officers were deployed in each of these precincts and when, then you could potentially directly control for deployment.

Q How would you control for black people having potentially more arrest warrants out for them because of the long systemic over criminalization of black

individuals in the City? You can't, right?
A Well, just, that is not a control variable, right, that you would include in a model like that.
Q Just a moment, Your Honor.
THE COURT: Sure. Take your time.
BY MS KOENIG:
Q One of the variables that you talked about on direct examination that you would try to control for is the driver's demeanor and the behavior of the driver, right?
A Ideally, yes.
Q How do you do that? How you find that data?
A Typically that is self reported data from the police it exists.
Q Ever go back and look at body camera?
A Well, that is increasingly being done. It's not on a regular practice, I would say, right now in the field.
Q No further questions, Your Honor.
THE COURT: All right. Redirect?

REDIRECT EXAMINATION

BY MR. GIBBONS:
Q Dr. Smith, is it the case that because statistical analysis is the best that could be done with the available data that it makes that analysis accurate or

reliable?
A No, that is not the case.
Q Despite Dr. Coston's disclaimer that they are not using census data to determine if bias exists, you disagree; is that correct?
A I disagree, yes.
Q Could you explain that, please?
A So, the heat maps, focus on the heat maps for a moment. I think the primary conclusion from the heat maps is that stops, this is what I heard, not only what I read, but heard in testimony yesterday is that stops, cluster stops of African-Americans or black drivers cluster along racial boundaries between black and white areas. And that they cluster in white areas. And that there are no concomitant clusters of white stops in black neighborhoods. So, the underlying conclusion then is that theres is bias, or that race influenced the decision of the police to stop in these areas. And I think Dr. Coston says that directly.

Without information about who is driving in those areas you can't reach the calculation that race had an influence on the outcome here, in this case traffic stops. It may hypothetically be the case that there are no or very few white drivers in black neighborhoods in Richmond, for example. In which case there are no

or very few white drivers available to be stopped in those neighborhoods. That is why the benchmarking question is so key in reaching conclusions about potential bias in the initial decision to stop.

Q That would explain, for example, the clusters of white drivers in third precinct and in the other precincts?

A Yes.

Q What is your view of the fit between data that Dr. Coston relies upon and the conclusions that Dr. Coston reaches?

A I think Dr. Coston, with all due respect to a colleague, an academic colleague, I tink Dr. Coston's conclusions go beyond his data, beyond Dr. Coston's data.

Q No further questions.

THE COURT: All right. May this witness be excused?

MR. GIBBONS: I believe so, Your Honor.

THE COURT: All right.

Dr. Smith, thank you very much for joining us. I appreciate it. Headed back to Texas today?

THE WITNESS: Yes, Your Honor.

THE COURT: Well, have a safe trip.

THE WITNESS: Thank you, sir.

(Witness stood aside)

THE COURT: All right: It is high noon.

Why don't we take a lunch break and come back at 12:45.

You can go ahead. Before we do that, let me ask you, do you have any idea how much evidence you have this afternoon?

MR. GIBBONS: We have three witnesses, and they will be much briefer.

THE COURT: Well, that ills good to know.

MR. GIBBONS: We estimate 2:00, 2:45? 2:30.

THE COURT: That is perfect. We will see then you then at 12:45.

MS KOENIG: You meant 12:45, not start at 2:45.

THE COURT: Oh, did I say 2:45? Thank you very much.

Recess court.

(A recess was taken)

THE COURT: All right, good afternoon, everyone.

We are ready for your first your witness, Mr. Seibert.

MR. SIEBERT: Yes, Your Honor. The United States calls Keon Turner to the stand.

KEON TURNER

AFFIRMED AND TESTIFIED AS FOLLOWS:

DIRECT EXAMINATION

THE COURT: All right, Ms Turner, thank you for coming. You can take off the mask or keep it on when on the witness stand. But please be sure to just speak directly into the microphone and that will help me.

THE WITNESS: Thank you.

THE COURT: Thank you.

BY MR. SIEBERT:

Q Thank you.

Ms Turner, can you spell your first and last name for the court reporter?

A Keon, K-E-O-N, last name Turner, T-U-R-N-E-R.

Q Ms Turner, how are you employed?

A I am employed by the Virginia State Police.

Q As a civilian?

A As a civilian, yes.

Q How long have been with the Virginia State Police?

A Since October of 2008, so going on 14 years.

Q What is your job at the Virginia State Police?

A Manager of the data analysis team, which I -- don't know if you want me to go into detail -- we manage data collection, such as crime reports, use of force, the Community Policing Act. Manage the repository for that information.

Q All right. So is it fair to say you are

essentially the supervisor over the group at VSP, Virginia State Police, that is in charge of collecting all the data for the state-wide Community Policing Act?

A That's correct.

Q What is the Community Policing Act just very quickly.

A Well, the Virginia Policing Act came about with house bill 1250. it is an act that initially --

THE COURT: You need to slow down there.

THE WITNESS: Sorry.

THE COURT: Thank you.

THE WITNESS: It was enacted on July 1 of 2020 based on house bill 1250. It is an act that requires that all traffic stops record certain data as listed in the Community Policing Act, including reason for stop, race, ethnicity, date of stop, location, and the result of the stop.

Q So as part of that VSP job with the Community Policing Act, you were entrusted with one, coming up with the criteria and standards for the state-wide collection effort; is that fair?

A Correct.

Q Also in charge of serving as a repository for all that data?

A Correct.

Q Correct?

And then you also are in charge of somewhat quality control, and before you send it to another agency of the State?

A That is correct.

Q What is that other agency?

A Department of Criminal Justice Services, DCJS.

Q So at times when you were reviewing data you have to make decisions on whether the data is rejected back to the local agency, or accepted?

A Yes. So when we receive the files, we initially created a technical specification which laid out the values that were allowed so that we could process it through our data warehouse to aggregate the information that we would then send to DCJS. If that data was invalid, we would reject it, and if it was valid we would accept it.

Q When did you first become aware of these requirements that as supervisor of the DART team that you were supposed to implement? Approximately when?

A We had about eight weeks to set this up. It was during COVID, so it was March 2020 where the legislation was proposed, and we found out that it may be signed. It was not signed until April. We had to create that technical specification I spoke of in time

to disseminate to agencies.

The first tech spec went out in May of 2020, and we should have started receiving data July 1 of 2020.

Q How would you describe I guess the planning phase or the phase right before the execution of July 1st from VSP standpoint?

A Extremely hectic. Of course this was during COVID. We also didn't have all staff in the office. Also there was civil unrest going on. We had limited staff as well. This was an unfunded mandate, so we were not given any additional finances to start this data collection. And we also had to get this set up for nearly 400 agencies in the State.

THE COURT: By 400, you mean Police departments?

THE WITNESS: Police departments and sheriff's offices.

THE COURT: Right.

BY MR. SIEBERT:

Q Was there anyone hired to assist the DART team with this collection effort for Community Policing?

A No. My current analyst was there, and she was typically with crime reporting. She assisted. There was no position created at that time. So it was just herself and myself.

Q As part of the planning phase your job and VSP's

job was to reach out to these local law enforcement agencies and kind of let them know what was going to happen, that there was criteria that they needed to start collecting; is that correct?

A That is correct.

Q And the criteria that was established was directly from the legislature, the Community Police Act. You didn't get to make up what you wanted.

A Correct. It was line-by-line verbatim from the statute.

Q When you reached out to these local law enforcement, what was their response?

A Stress.

Q Why stress?

A It was a very quick turn around to get data. Also we were not able to hold any type of training. Most people were stretched pretty thin during that time, and especially again because it was COVID and civil unrest.

Q All right.

I think you might have answered this, but in your opinion was this sufficient time to plan, implement this roll out?

A Absolutely not.

Q So, you mentioned some resource issues for the law enforcement that needed to collect this data. Did you

have any issues for both -- were these issues for both big and small departments?

A Yes.

Q And can you describe both?

A Typically with your small departments they may not be fully electronic. They may not have what is called a CAD, or computer aided dispatch, in their vehicles. So capturing this information at the time of stop becomes a little more tedious. They may have to capture it manually by handwriting, and then have it aggregated at their agency through a records personnel, who will then send that information to us.

Just about 70 percent of law enforcement agencies in Virginia have about 50 or less personnel. So, with also having COVID and other issues going on at that time, they had limited manpower. So they were doing all this with limited manpower.

On the other side for your larger agencies they may have CAD systems that can capture this automatically or electronically, excuse me, but typically that requires getting your technical specifications to your vendor and taking anywhere from six months to a year to have that module recruited in their system.

THE COURT: So you are telling me that all of the

local agencies have their own purchase of computer programs?

THE WITNESS: Correct. We are not able to define or guide agencies into what software to purchase. There are about 20 different vendors, if not more, operating in Virginia at any one time.

BY MR. SIEBERT:

Q All right.

Let's go back to the criteria that was established one second. Since the first six months initial roll out phase of the Community Policing Act has the criteria subsequently changed multiple times?

A Yes.

Q Can you tell The Court about that?

A It has changed multiple times for various reasons. There was additional legislation in Senate bill 530 that required additional type of stops to be collected. So it went beyond traffic stops. And, also, now record stop and frisk. And it also recorded any involuntary detention. So it expanded significantly. With that we had to add additional parameters for the data collection. Once we started noticing issues we were not able to tie those specific incidents back, so we added in what is called a record ID. So that we could ID each stop as opposed to getting an aggregate of

information that we couldn't follow.
Q So a record ID would be like an infinite number to a particular case or for a law enforcement agency?
A Correct.
Q But that did not exist in July 2020 to December of 2020?
A Correct. Didn't exist until July of 2021.
Q Now, under these new changes the Virginia State Police actually is going to have regulatory authority to update and change their criteria as needed, is that correct?
A That's correct.
Q Okay. But they did not have that authority back in July of 2020 to December?
A We did not. We were limited to explicitly what was stated in the --
THE COURT: So they changed the statute?
THE WITNESS: Yes.
BY MR. SIEBERT:
Q Why did they change that?
A They changed it based on recommendations from both VS and DCJS.
Q Let me stop you there. Were these recommendations coming directly from you?
A Yes.

Q All right. Go ahead.

The changes, and why did they adopt this new system of regulatory authority?

A It was discussed with myself and my analyst and with DCJS personnel what we could do to make it better. We found a lot of issues but we weren't able to tie those issues directly back to a stop. So that was creation of the record ID. When we were reviewing the files that we received we noted that there would be information we deemed being duplicate, would be the same race, set, date. There were also additional issues such as quality control issues where we would have missing information or not using the correct value. And as a way to support quality control we needed a record ID so we could notify that agency that this particular incident has invalid values or missing data. Prior to that change we could only reject the entire file back to agency and say we couldn't accept it.

Q So the agency basically after being rejected would have to come up on their own somehow to fill in missing data or change the wrong data?

A Correct.

Q All right.

So let's talk about the data collection and

submissions you received in this July 2020 to December of 2020 period. Did you receive law enforcement submissions during that time period?

A Yes.

Q Do you specifically hear, receive submissions from Richmond Police Department?

A Yes.

Q How often were these submissions in that first six months?

A So the initial quarter was received all at one time. It was received by the due date. So that would be July 1 through September 30. We received on October 14th. However, it had a lot of invalid values. It had to be rejected. And then ultimately we received it again corrected. We then received the October data in November, and we received the November data in December. We did not receive the December data, and we had to reach out to them to let them know we are missing.

THE COURT: Reach out to whom?

THE WITNESS: Yes.

THE COURT: Who did you reach out to?

THE WITNESS: We reached out to Lt. Beasley.

THE COURT: At where?

THE WITNESS: Richmond P. D.

BY MR. SIEBERT:

Q So you didn't receive the December 2020 data, so you reached out. When did you actually receive the December 2020 data?

A We did not receive it until July 14. There were still quality control issues, but they were quickly fixed, and it was returned on July 15.

THE COURT: What were the quality control issues?

THE WITNESS: There were several issues. Things such as you using "Caucasian" instead of "white." Or using "African-American" or "A" instead of "black" where we had specific values that should have been used such as "W" for "white" or "B" for "black" or "A" for "Asian." So when we were receiving that information and it doesn't meet the technical specs we can't inject it into the data warehouse.

Other issues were things like missing statute code. Instead of having the actual statute code it would say "failure to yield" or, you know, another type of infraction. And we actually needed the code section itself to ingest it.

Q So overall, how would you characterize these law enforcement submissions during the first phase?

A Initially, extremely poor. And it was to be expected.

Q Does that go for Richmond Police as well? I know I have talked about law enforcement generally. Is that fair for Richmond Police as well?
A Yes.
Q The reason you say it is poor is all of the reasons you just listed about incomplete reporting, is that right?
A That's correct.
Q And inconsistent reporting.
A Yes.
Q Did see any problem with duplicative data?
A Yes. Typically if a person is given more than one citation we had notified agencies to only send over the most egregious offense, and agencies would send over every single citation that that person received. That was an on-going issue.
Q So, your job Virginia State Police when you collected this data was to send back. You never discarded data?
A No.
Either accept or reject.
Q Okay.
Is Richmond Police now currently up to date in terms of their submission?
A Yes.

Q The gap we already talked about from December data to July data, was it, is that the longest gap that was missing?
A Yes.
Q Did you drill down on why there was problems with the Richmond data?
A It was typically the same problem with several agencies.
Q Well, stop there. Was there internal and external issues that were having an effect on the data collection efforts --
A Yes.
Q -- of RPD?
A Yes.
Q What were those?
A Initially we received data from a lieutenant who had either retired or was promoted but no longer in charge of it, which caused the longest gap. But also during that time period of course it is 2020 so we are talking about a reduction of manpower, state-wide and specifically in Richmond during civil unrest and, of course, during COVID. Those are the two major issues that affected it.
Q Was there also leadership issues at RPD that you are aware of?

A Yes, they had a lot of turnover, which is how we ended up, we being the contact initially was Lieutenant Beasley, and then it moved to Mr. Renne.

Q So is the step of the process is for you to send data to DCJS?

A That's correct.

Q That's the Department of Criminal Justice Services?

A Yes.

Q What do they do?

A So at that point they take the aggregated data, and they are required to create a report. That report is then disseminated to the Governor, the General Assembly, and the Commonwealth Attorney.

Q Okay.

As we already talked about, you are part of the process of recommending further changes to make better data collection efforts across the state?

A Correct.

MR. SIEBERT: One second, Your Honor.

THE COURT: Take your time.

MR. SIEBERT: No further questions.

THE COURT: All right. Cross examination.

CROSS EXAMINATION

BY MS AUSTIN:

Q Good afternoon, Ms Turner.

THE COURT: Do you work on Midlothian Turnpike?

THE WITNESS: I do.

BY MS AUSTIN:

Q The Government Attorney asked you questions about Richmond Police Department submission of their data under the Community Policing Act from July '20 until December '20?

A Um hum.

Q You said that it was a while, the December 20 report was somewhat delayed?

A Yes.

Q But isn't it true that by September 30th of 2021 Virginia State Police and you had received all the months from July '20 to December '20?

A Yes.

Q And you have received those from the Richmond Police Department and looked at it and either accepted it or rejected it?

A Yes.

Q If you rejected it because there were mistakes; is that right?

A Invalid values. I wouldn't know if they were mistakes, because I am not familiar with the stops themselves.

Q Invalid values. I am glad you made that point. Meaning the Community Policing Act had a very strict protocol for reporting data?
A Right.
Q If the police officer reported that data but used the wrong terminology, you had to send it back?
A Wrong data value, yes.
Q Okay. Then did you send it back for the purpose of Richmond Police Department correcting that?
A Yes.
Q And then when they would re-submit it you again had to make that decision whether you rejected it or accepted it, correct?
A Correct.
Q Okay.
At some point you had accepted all the months from July '20 to December '20?
A Yes.
THE COURT: When did you do that?
THE WITNESS: July 15th would have been when we received that December file, so speaking from that time period, July 1 of 2020 to December 31 of 2020, all six of those months were accepted by July 15th of 2021.
THE COURT: Okay.
BY MS AUSTIN:

Q You talked about how you are the, correct me if I get terminology wrong, the Data Collection Manager at Virginia State Police?
A Right. Management Data Analysis and Reporting.
Q Okay. In addition to data collection, gathering data law enforcement agencies for the Community Policing Act, what other purposes do you gather information from law enforcement?
A Information is gathered when there is a use of force. Information is gathered when there is a crime that has been reported to law enforcement. That would also include hate crimes, or what is known as LEOK, law enforcement officer killed or assaulted. And we also manage the reported management system for Virginia State Police, as well as the evidence management system.
Q When up say the records management system for the Virginia State Police?
A Case management.
Q Case management. So that deals strictly with the Virginia State Police?
A Yes.
Q You were receiving information from local law enforcement agencies on use of force?
A Um hum.

Q And how long had you been receiving that information?
A That was based on statutory requirement that came about in 2015. Officer involved shooting. It was elevated to use of force based on FBI requirement during 2019.
Q In that, when those provisions were passed and that information had to be collected, did you work with local law enforcement agencies at that time to make sure they complied with protocol?
A Yes.
Q Okay.
So, this wasn't a new occurrence when the Community Policing Act was passed that, well now there is more information that law enforcement agencies have to submit to you, correct?
A Yes.
Q And you had been in contact with local law enforcement agencies over the years prior to passing of the CPA in getting them to report correctly data required by statute?
A Yes.
Q And that include the Richmond Police Department, correct?
A Yes.

Q When you talk about small law enforcement agencies that might not be on line and have individual, I think you called them CAD?
A Um hum.
Q That is the computer in vehicle.
Richmond Police Department is not considered one of those small law enforcement agencies?
A No.
Q They are an agency that has the CAD in every vehicle?
A Correct.
Q Okay.
You had been working with someone prior to passage of the CPA, you had been working with someone at Richmond Police Department whose responsibility it was to pass data on to you?
A Yes.
Much smaller data collection, but yes.
Q And you said throughout, after the passage of the Community Policing Act there were changes to the legislation as to what needed to be collected?
A Yes.
Q And when those changes happened you than passed those on to law enforcement agencies?
A Correct.

Q Do you know when those changes, what changes you referenced in your direct examination, what changes were those?
A The changes that occurred on July 1 were based on, like I said, Senate bill 1530.
Q July 1 what year?
A 2021.
Q So let me stop you right there. That is the first change that was made, it was July of 2021?
A Yes.
Q Okay.
When you were in the process of sending information back to a law enforcement agency saying corrections need to be made, and then sent back to you, you reviewed it one more time, of course, correct?
A Um hum.
Q Yes?
A Yes.
Q If it was accurate and complied with the statute you then did what with that information?
A That was forwarded to DCJS.
Q Okay. So the Richmond Police Department reports to you from July 2020 to December 20. Were all of those reports forwarded to the Department of Criminal Justice Services?

A Yes, those particular six months would have been received sometime in July of 2021. We would have sent it off in July.

Q You sent it off because they were reviewed and accepted?

A Yes.

Q One moment, Your Honor.

THE COURT: Take your time.

MS KOENIG: No further questions.

THE COURT: Redirect?

REDIRECT EXAMINATION

MR. SIEBERT: Very briefly.

THE COURT: Sure.

BY MR. SIEBERT:

Q So just to be clear, VSP has no way to know the information receiving from individual departments is accurate?

A That is correct. We can only say that the data as it is sent is either valid or invalid.

Q But there is no way to know if every officer on the street is actually complying with the CPA --

A That is correct.

Q -- or filling it out correctly?

A That is correct.

Q And you accept the accuracy of the data as you

receive it?
A Yes. We are only a repository.
Q Going back to this December 2020 data set. It was received by Virginia State Police, but the importance of it, I guess for today, is that it didn't make the March cutoff; is that correct?
A That's correct.
Q And tell The Court about this March cutoff.
A It would be legislation was written that a report needed to be created by July 1 of the following year. Which would have been July 1 of 2021. That did not provide enough time for agencies to submit data, and for DCJS to review that data. So DCJS and VSP, myself, we discussed a cutoff date. It was decided that the first three months of the collection would make it into the report. So that would have been all data submitted by April 15 of 2021. The last month of Richmond was December 2020 of RPD was not received until July. It would not have been included in the report.
Q But other law enforcement agencies across the state did have their December data included?
A Yes.
Q Now, just real brief. You mentioned on cross examination about other data collection efforts that you have been involved in and VSP has been involved in?

A Yes.
Q How would you rate the level of stress or -- I don't think that is the right word, the easiness of putting this together for the Community Policing Act as compared to the other data collection efforts you were involved in?
A Well, to provide some context. Speaking specifically to use of force data, typically there is a pilot, there is a trial period where we collect that information. The technical specifications are sent out. And we were able to train agencies prior to requesting the data. So looking at use of force data, we had about three years before we actually started collecting that data correctly. And that is because we did have the time. Using Community Policing Act we had eight weeks.
Q There was no pilot program period where you just ignored the data, you immediately had to start using it and collecting it?
A Correct.
MR. SIEBERT: No further questions, Your Honor.
THE COURT: Okay. Thank.
May she be excused?
MR. SIEBERT: From the Government, yes, sir.
MS KOENIG: Yes, Your Honor.

THE COURT: Thank you very much for coming, ma'am.

THE WITNESS: No problem.

THE COURT: Have a good rest of the day. Thank.

THE WITNESS: Thank you.

(Witness stood aside)

MR. SIEBERT: United States calls Jim McDonough, Your Honor.

THE COURT: All right.

MR. SIEBERT: I will go get him outside.

THE COURT: All right.

JAMES McDONOUGH

AFFIRMED AND TESTIFIED AS FOLLOWS:

DIRECT EXAMINATION

THE COURT: Thank you, sir. Thank are for coming today. I appreciate it.

While you are testifying you are free to keep your mask on or off, whichever you are more comfortable with. If you keep it on you need to speak loud and right into to the microphone.

THE WITNESS: I will.

THE COURT: Whichever you want. Makes no difference to me.

THE WITNESS: Yes, sir.

BY MR. SIEBERT:

Q All right.

Mr. McDonough, state your first and last name and spell it for the court reporter.

A James McDonough. I work for the Virginia Department of Criminal Justice Services.

Q Can you spell the last name for the court reporter?

A M-c-D-O-N-O-U-G-H.

Q How long have you been with the Department of Criminal Justice Services?

A Thirty-two years.

Q Just give the Judge a quick background that is relevant to your current job.

A Yes, sir.

I am the director of the Criminal Justice Research Center at the Department of Criminal Justice Services. I have been with that group for 32 years. I have my training in experimental psychology. I have a PhD that primarily focused on how you design and conduct experiments. I also have president and vice-president of the Justice Research Statistics Association, which is a national network of the state criminal justice statistical analysis centers in all of the states in the U.S.

Q What is your exact job, and what do you do as the director of criminal research center, or the manager

for criminal Research Center at DCJS?
A We have a staff of five. I oversee the assignment of research studies that we are given by the Governor, the Secretary, the legislature. Essentiality I assign the work, I quality control the work. I review the work that our analysts do and the reports that they write. And basically just provide oversight in terms of seeing that it is done correctly.
Q As part of your portfolio you are in charge of the Community Policing Act for DCJS; is that right?
A Yes.
Q Obviously you are familiar with the Community Placing Act?
A Yes.
Q Just generally what is it, real quick?
A It is a law that was passed in 2020 that requires local law enforcement agencies when they make traffic stops to collect data on the circumstances of the stop, including the demographics of the drivers involved, report that data to the state police repository. And we in turn at DCJS are required to receive that data from state police, analyze it, and write an annual report on the interpretation of the data.
Q Are you familiar with when the Virginia Policing Act went into effect in Virginia?

A It went into effect on July 1st of 2020.
Q You became aware of prior to its passing and passing, that the act was coming and you started preparing for that; is that fair?
A Yes. Prior to its passage we were aware the bill had been introduced, so we started doing some preliminary work, looking at how those types of data collection efforts had been tried in the past and how they went.
Q Were you provided any funding to fulfill the goals of the Community Policing Act? When I say you, obviously, DCJS.
A We were provided funding to hire someone to work on the project, but we didn't receive the money to hire that person until several weeks before the first report was actually due.
Q That was the first report that was due in July of 2021?
So during the phase of July when it first went into implementation, until December of 2020, you did not have an individual funded for this Community Policing Act?
A No, we did not have a person funded and dedicated to that.
Q But you had, obviously, people working on it?

A Yes. Myself and one of our other statistical analysts did most of that work.
Q So how would you describe, I guess, the initial phase of the planning phase of this in terms of DCJS?
A The planning phase was first of all just trying to find out anything we could in the scientific literature about how those types of studies had been attempted before. And we also began to receive some preliminary data from state police to look at so we could see what kind of data were coming in, and start assessing how well we thought it was and what we might be able to do with it.
Q In your estimation did DCJS and yourself have sufficient time to plan for this roll out in July of 2020?
A No. It was a very rushed process.
Q Was the scale of the project also significant in how you had to deal with?
A Yes. It's one of the largest projects that we have had in my experience working.
Q Did you receive any training, or staff receive any training, how to deal with implementing the Community Policing Act?
A No.
Q During this initial phase, July of 2020 to

December of 2020, did you start receiving submissions as required by law from Virginia State police?

A Yes, we did.

Q And when? Do you know rifle when started receiving that data?

A We started receiving some very, very early data in January of 2020, and then it kind of dribbled in.

Q You mean January of 2021? I'm sorry.

A Twenty-one, I'm sorry, yes.

Q Okay.

I cut you off.

A Then it sort of dribbled in between then and May of 2021 when we received the final set of data that we actually used for our report.

Q How would you characterize these law enforcement submissions, the quality of them?

A The quality was very shoddy. There was -- there were a lot of missing reports, agencies that had not gotten up to speed yet on collecting and reporting it. The data that we did receive, it frequently had missing values in what was supposed to be reported. There were values that were not valid values, for what should be reported. So it was very shoddy and preliminary.

Q When you received data that either be incomplete or missing fields, or incorrect, what did you do with

that?
A Typically when we saw those type of things we would exclude those records from our analysis.
Q So if you had a traffic stop that was, say, on August 8, 2021 and it had every field in there except for gender, would that be something you discard?
A Yes, we would exclude a record if any of the values that were required to be there were not.
Q Why would you do that if you are looking for, presumably the Virginia Policing Act is about racial bias and racial bias in policing, why would you exclude gender if that is only field missing?
A Generally we wanted to work with only what we thought was the most clean complete data we had. And in our experience when you have problems with one part of a record it is probably more likely that there may be other problems. And we didn't want to get into excluding records because one would be missing this field and one would be missing just that field, and having to make decisions about which ones to throw out. We think the cleanest way to make the data the best it would be is if there were any problems with the record we would just exclude it.
THE COURT: Let me ask you. Did Dr. Coston rely on data from DCJS?

MR. SIEBERT: I think the --

THE COURT: I don't think he did.

MR. SIEBERT: The defense has argued the Virginia Policing Act data is further evidence of -- maybe Dr. Coston didn't, but I think their supplemental argument is that the Community Policing Act also shows a disparity.

THE COURT: All right. Okay.

MR. SIEBERT: I think the Community Policing Act is a separate body of data.

THE COURT: Go ahead. That is fine. Okay.

BY MR. SIEBERT:

Q So was this a surprise to you that in the first six months that you had to discard data?

A No. For a project of this size in our experience it's not at all uncommon that you run into this these start up issues.

Q All right.

So, did you, were you able to run statistical analysis, or your shop, the body that you supervise individuals, able to run any statistical analysis on this data?

A We ran just descriptive statistics to say these are what the numbers are. We were not able to run any type of test of sophistical significance given the low

quality of the data.
Q So DCJS's opinion is essentially, and you as a supervisor, the data was so poor that you received during this first six-month period you didn't even attempt statistical analysis of any significance?
A No. Did not.
Q Is it fair to say your report does not have any statistical validity or significance in any anything you have collected?
A Yes. It is purely descriptive, it is not a statistical analysis.
Q Okay.
Were you able to, based on the strength of the data, make any conclusions about, like a benchmarking standard for driving population in some place like the City of Richmond?
A Not any type of a valid benchmark, no.
Q We are going to get into that in a second.
Let's talk about the DCJS annual report. Can you tell The Court very briefly what that is?
A It is a report that DCJS is required to do annually where we will look at the prior years data collected by state police, analyze it, and then by July 1 of each year produce a report with the results of that analysis.

Q You drafted this report?
A Yes.
Q You supervised and approved its final, I guess, send-off to your higher up officials?
A Yes.
Q Where did -- who did this report go to?
A The report goes to the Governor, the General Assembly, and the State Attorney General.
MR. SIEBERT: I believe the defense has already introduced this. I was going to pull up certain pages of the report. But, is it fair that I just provide this to the witness?
THE COURT: Give it to him.
MR. SIEBERT: Marked as Government's exhibit one, but the same thing as --
THE COURT: All right. Already admitted.
MS KOENIG: For the record, defendant's exhibit six, so it is clear what we are talking about.
BY MR. SIEBERT:
Q So, just looking at that, you recognize what that is, right?
A Yes, sir. This the report that we produced.
Q Okay.
So before we get to the report, I just want to deal with some quick threshold questions. What were

your, what is the key take away from this report, or the key take away from this report.

A The key take away of this report is that we did find that given the measure we used there were instances where drivers of a given race were stopped at a higher rate than their percentage of the population. But given the quality of data, the lack of a valid benchmark and ultimately a range of other issues, we could not draw any conclusions at all regarding whether or not racial bias, or bias based policing, played any role in these disparities that we found.

THE COURT: When you say a racial group over represented, you are talking about African-Americans?

THE WITNESS: Yes.

THE COURT: Thank you.

BY MR. SIEBERT:

Q You guys created what is reflected in the report called "disparity index," is that right?

A Yes.

Q Give The Court in layman's terms what a disparity index is.

A Okay.

The disparity index is where we took the percentage of each racial group that was represented in the traffic stops for a given locality, and we compared

that to the percentage of the, each racial group's make up of the population in that locality. The driving age population. So we had something to compare the traffic stop percentage to give us at least a very early going in sense of how those things fall out.

Q Okay. So the disparity index does not show racial bias, just says disparity?

A Correct.

Q In terms of getting this number explain how you get to like one point O disparity. What is that?

A Essentially, if, for example, if 45 percent of the traffic stops in a locality were African-Americans and 45 percent of the driving age population in that locality were African-Americans, that would be a disparity induction of one, meaning they are equal, there is no sign of a disparity between the two.

Q Okay. One-on-one comparison is one point O?

A Yes.

Q The -- what was City of Richmond from the July 1st, 2021 report disparity index?

A Disparity index 1.6.

Q How --

THE COURT: What does that mean?

THE WITNESS: What it meant was that driving African-American drivers were stopped at a higher rate

than the rate of drivers -- African-American people, African-Americans of driving age in the population of the City of Richmond.

THE COURT: So 1.6 times higher than with respect to the percentage of the population, is that what you are saying?

THE WITNESS: Yes, although I wouldn't say it's what we would expect, because we do not have a benchmark to give us what we would consider to be an accurate expected value.

THE COURT: Well, aren't you effectively using the population of African-Americans over the age of 16 as a rough benchmark in this case?

THE WITNESS: Yes, I would say very rough benchmark.

BY MR. SIEBERT:

Q That is why throughout the report, we will get to it, you called this preliminary?

A Yes.

Q And are all over the report you talk about why you can not show racial bias from the data or the disparity index that you used?

A Yes.

Q What is the state average disparity index?

A The state average is also 1.6.

THE COURT: It it is interesting to me, Mr. Seibert, all of these numbers show that a whole lot more African-Americans get arrested than white people, but nobody is willing to say, gee, there might be some bias.

MR. SIEBERT: Well, Judge, you want me, would you like me to answer?

THE COURT: I would like to hear what you think. I have been listening to Dr. Miller testify and now Mr. McDonough and I just don't -- it looks to me like everybody sort of dodges the bullet on this.

MR. SIEBERT: Well, one because these are all preliminary studies, and in order to find racial bias there would be rigorous testing because, Judge, we haven't heard this yet, but I think my answer to you would be the ramifications of making a finding about racial discrimination in a case like this would have, and it wasn't true, would have earthquaking, you know, results.

THE COURT: Well, might be some building shaking then.

MR. SIEBERT: Right. But the point is, if it is deemed properly based on evidence and you wrong about it, imagine the study that Dr. Smith did in LA and that the court improperly found, or he improperly found

based on weak statistical evidence the effect of that. That is why the mayor, chief of police, in answer to, you know, the population, that they don't want the traffic stop they could make changes. If this Court does that essentially would make every traffic stop involving an African-American, then the indictment would be dismissed, right?

THE COURT: Well, not necessarily. I don't know -- you are confusing -- well -- you are equating a finding that there is bias with the remedy of dismissal when in fact, for instance in this case, we have got the gentleman driving around with a fake license plate on and all that. Maybe that gets stopped regardless of bias. This is -- these are very, very difficult issues.

MR. SIEBERT: I agree, Your Honor. But it's not our burden. The burden of the defense. If there is racial disparity, that is a starting point. This would be a starting point for any real statistician to come in here and dig in and look at all at variables. There is plenty of states doing that now.

THE COURT: Dr. Coston agrees with that.

MR. SIEBERT: I wasn't talking to Dr. Coston. I am just saying there is data collection efforts in I think 40 states around the country to varying degrees.

Some are better than others. If Virginia wants to be serious about data collection, data collection efforts they could start collecting better data and give this individual an opportunity to make findings that are more than just preliminary.

THE COURT: Is it your contention that Virginia still has an inadequate collection system going?

MR. SIEBERT: I am not the expert in this field. I think they still need to dig into -- Dr. Smith provided many variables that need to be looked at that weren't on this January, or the July 2020 to December of 2021.

THE COURT: Dr. Smith's testimony was essentially that you don't have all the data. And in particular it's almost impossible to have a benchmark. That is pretty much what he said. I suppose you could go look at the crash data, you could possibly go look at the veiled darkness data, whatever it is called, or you could station people on every corner to count heads. But, that is really a monstrous task.

MR. SIEBERT: I think the reason this is important, Judge, in my opinion, it's a starting point. So now if a department is wide spread, that will at least give the signal to start digging deeper.

THE COURT: Well, all right.

MR. SIEBERT: The other problem is if you have individual rogue officers that are making the problem, go after them. This will help identify and narrow down if there are certain parts of an area. So there is bad actors on the individual level. I think certainly this helps, you know, factor that in and have them dig deeper. But to say that the Richmond Police force is designed, or their enforcement system to selectively enforce African-Americans I think is a step too far. That is all we have heard throughout today.

THE COURT: You know, ultimately this may be a political question. Go ahead. Sorry.

MR. SIEBERT: Yes, Your Honor.

THE COURT: You are doing good.

BY MR. SIEBERT:

Q So there is a disparity in expert bias?

A No.

Q Is it fair to say there is multiple variables that could explain this disparity?

A Yes, that is why we were so cautious because we are aware there are multiple other variables that could explain why you could have a mismatch between the percentage of drivers of any given race stopped and the percentage of those, of driver-age in that racial group within a locality.

THE COURT: Here is the thing. The last witness said there were 400 police agencies in the state. Isn't that what he said?

MR. SIEBERT: Yes.

THE COURT: And if you add them all together it is still 1.6, a 1.6 disparity index.

THE WITNESS: Yes, that's correct.

THE COURT: Seems to me like that means there is a problem in Virginia that needs to be addressed. I mean I just -- everybody says we need more data, we need more data. We have 400 contributors of data to this thing which collectively, including places that are as conservative as Brunswick County and as liberal as Fairfax, they all when you add them all together comes out to a disparity in stops. I just don't understand why everyone is so cautious about saying the Emperor has no clothes on.

THE WITNESS: If I could, Your Honor, I certainly understand.

THE COURT: That wasn't a fair question. I apologize.

THE WITNESS: As researchers what we were trying to do is determine to the extent to which we could or, couldn't make that statement based on the data that we have. And we believe that there are many other factors

that contributed to that 1.6, whether it be Richmond or the State that could be contributing to that that are not based on race. Race might be in there somewhere, but we don't know.

THE COURT: Over 400 agencies, whatever foul up in the data there are, it still comes to 1.6, and so we doubt that 1.6 is an accurate number?

THE WITNESS: Yes, we still doubt that that is an accurate number reflecting what we are trying to measure.

BY MR. SIEBERT:

Q Well, let me ask one follow-up question. I mean could police deployment patterns be a significant factor that change a variable that could cause this disparity index?

A Yes. If, for example, police patrols are heavier or denser in a high-crime area that might be predominantly minority in population, well, that could skew these numbers to why we are getting more stops of African-American drivers.

Q Could calls for service that police are required to respond to also be another variable that could factor in, that could be, I guess, factor in to the disparity index?

A Yes.

THE COURT: So is Pierre Redding in the Richmond Police Department going to tell us something about deployment patterns?

MR. SIEBERT: No, Your Honor. A data collection individual that we have actually cut to move forward on this faster. We incorporated some of Ms Turner's testimony.

THE COURT: All right.

BY MR. SIEBERT:

Q So in drafting, I guess, this report were you and DCJS concerned certain officials could use the report to claim it showed racial bias?

A No. We stated that the report should not be used to do that.

Q Right. But is that why you put that in there because you thought it could be misused by officials --

A Yes.

Q -- to say the disparity index proves racial bias?

A Yes.

THE COURT: Go ahead. Feel free to lead him.

BY MR. SIEBERT:

Q So, you document throughout this limitations that we were going to get to of what your findings are?

A Yes.

Q And you already mentioned this, but one of the key

limitations was the benchmark problem?
A Yes.
Q And tell The Court what that is.
A Again, it is to determine whether or not there is bias you would have to have some measure of what those numbers would look like if there were not bias. And we use that driver age population as that benchmark. But given that there are no reliable benchmarks to our knowledge in any of the attempts to do this, we just recognize it as a very crude preliminary start toward trying to develop one.
Q So your benchmarking was taking out anyone under the age of 16 from the census data?
A Assuming they are not drivers.
Q Would you ever consider just using all the census data? Was that ever a consideration?
A No, we did not, because given how much noise there is already in this data we assumed that using this chunk of the population that is highly unlikely to be out there driving and subject to being stopped would only make the data even noisier and of less quality.
Q All right.
So let's go to, very quickly, can you bring up Government's exhibit one, I guess. Can you blow up the bold area. That paragraph.

THE COURT: We are on Government's exhibit 1 A.

Q Yes, Your Honor.

Can you read the bold there?

A "The information presented in this report is preliminary and should be interpreted with caution."

Q This is the first page of your report?

A Yes.

Q Why are you saying that this is preliminary and should be interpreted with caution?

A We are saying that because it was very challenging for the law enforcement agencies to begin collecting and reporting this data many agencies had trouble reporting it at all, or understanding exactly how it was to be reported. Of the data that were reported there were various issues with the quality and the completeness of the data. And some smaller agencies that did not have a lot of resources were not able to report many stops at all, so few, or so few that it was not possible to do any type of interpretation of the data.

Q Could we go to the next paragraph down?

There is another reason in mentioning that. Tell The Court about what the other limitations are.

A Yes. Another one of the limitations is that there is no standard way right now for law enforcement

officers when they are making a stop to determine what the race or ethnicity of the driver is. There is no indication of that on a driver's license or a D M V record, so it was left up to the officer's discretion to make that decision, or if they wished, to ask the driver what their race or ethnicity was.

Q All right. Go to 1 D. Go to the second paragraph. Just blow that whole paragraph up.

Yes.

Can you read the bold on that?

A Yes. "Although this analysis identified disparities in traffic stop rates related to race, ethnicity, it does not allow us to determine or measure specific reasons for these disparities."

Q All right.

So, that applies to every police department in the country, in the state, is that right?

A Yes.

Q Including RPD?

A Yes.

Q All right.

To next paragraph down. Sorry. Keep up what you just had.

Talks about the various factors that could help explain why members of a given race may be stopped at

higher or lower rate. What are those other factors?
A Among them are different driving rates or patterns by different racial groups. Again, we don't know the details to benchmark this. We know these differences exist, but some groups may be more likely or not to drive than others at given locations based on employment locations, whether or not they use public transportation, different rate of policing in different areas. Again, high crime areas may have more police presence, therefore more stops. And individually you see some cells may simply have different guidelines on what discretion they give to their officers in when to determine whether or not to make a stop.
Q Okay.
Close that and go to the next paragraph down. All the way down to the recommendation paragraph.
THE COURT: Hold on. We are one.
MR. SIEBERT: One B still, Your Honor.
THE COURT: Okay.
BY MR. SIEBERT:
Q So talks about major limitation of the study. Could you tell The Court what that limitation was?
A Sorry. Could you repeat the question?
Q Yes.
The first paragraph highlighted talks about the

major limitation of the study. Tell The Court what that major limitation was. We touched on it a little bit.

A Yes, sir. The major limitation is, again, the benchmark problem. We do not know what percentage of any given racial group's driving, actual driving habits or exposure to being stopped is. That is what we need to compare the actual number of stops to.

Q All right.

Then the recommendation one, so this is a recommendation that you are giving to state officials.

A Yes.

Q All right. Tell The Court what is that recommendation?

A The first recommendation states the percentage and DI's presented in this preliminary report should not be interpreted to indicate that there are any individual law enforcement agencies practicing bias based policing given the limitations that we cite throughout the study. And therefore we recommend that these things be used only to identify where there might be a potential for it, but not to conclude that there is.

Q All right.

You recommend that in the areas where there is a disparity that requires further review and potentially

further action to either reduce or eliminate where there is this disparity?

A Yes.

Q That is your recommendation to the General Assembly, the Governor, the Commonwealth Attorney, and the Virginia Attorney General?

A Yes.

Q All right.

We are not going through it, but later in the report you give recommendations on what some other studies that may be more accurate way to do this?

A Yes.

Q Just tell us quickly what those are.

A Based on research we have seen done elsewhere where they had more resources, time, whatever, breaking out this type of data by whether or not the stop occurred during daylight or darkness has been recommended as a method. The assumption being that in the dark it may be less likely for a police officer to discern the race of a driver prior to deciding whether to stop. We also recommended that if possible, if we could obtain data on the race of drivers within a locality that are involved in traffic accidents, that would provide a better benchmark of how often are different groups out there driving. Because in those

cases police officers don't have the discretion to respond or not. They are called. So presumably any of those disparities that might exist in traffic stops would not be included there. And that would give us a better representation how many drivers in different groups are actually on the road.

Q Okay. Briefly, one C.

And let's highlight the bold all the way down to the recommendation. Sorry. The second paragraph all the way down to the recommendation. This is the final portion of your report; is that right, page 67?

A Yes.

Q These are your final recommendations?

A Yes.

Q And you are touching on the same issues audited before regarding disparity; is that right?

A Yes, we are basically summarizing most of what we talked about earlier in the report.

Q Okay. The recommendation is what we previously just reviewed about disparity indexes?

A Yes.

Q Okay.

Just almost done here. Were you able to determine any methods to analyze or assess subjective motivation for individual officers?

A No.
Q In this -- this annual DCJS report was released when?
A It was released July 1 of 2021.
Q Okay.
And last question. Does this report in any way suggest there is racial bias about police officers for any stop conducted in the Commonwealth of Virginia from 2020 to 2021?
A No.
MR. SIEBERT: No other questions, Your Honor.
THE COURT: Thank you.
Cross examination?

CROSS EXAMINATION

BY MS AUSTIN:
Q Good afternoon, Mr. McDonough. Did I pronounce that correctly, McDonough?
A That's correct. Yes.
Q Your work at the Department of Criminal Justice Services you said is in research. You are director of the research center, right?
A Yes.
Q So for the last thirty some years, correct?
A Yes. Roughly thirty years, give or take a year.
Q Okay. That is fine. Over 30?

A Yes.
Q We can agree on that.
And so has it been your role there at the Research Center that you constantly analyze data coming in and prepare reports?
A Yes.
Q Where does that data usually come from?
A It comes from a variety of usually state agencies, the Department of Corrections, the Virginia State Police, the Supreme Court. Various criminal justice agencies in Virginia.
Q Is that data transferred to your office usually by means of a statute directing that you receive that data?
A No. Most of it is not required by statute. We have very broad statutory requirement to analyze criminal justice data. But each one is not listed in statute in terms of where it comes from.
Q But analyzing data from different state agencies is what your center does, --
A Correct, yes.
Q -- correct?
And so, when you stated you didn't have any training on how to receive the data that was submitted to you pursuant to the Community Policing Act your job

for the last 30 some years has been receiving data from state agencies, correct?

A Yes.

Q And then analyzing that data?

A Yes.

Q And producing reports?

A Yes.

Q And you talked about when you started receiving data under the Community Policing Act, that some of it was shoddy, I think. Did you say "shoddy?"

A Yes.

Q Okay. And if found that to be the case you discarded it or didn't use it; is that correct?

A Yes, if we had the missing records or missing values in records or values there were clearly not within the range of what could be reported we would be discard those.

Q And do you -- is it your understanding that that information went through quality control at Virginia State Police before it came to you?

A It went through some level of qualaity control, yes.

Q And then you performed another level of quality control when you received it?

A Yes.

Q Yes?
A Yes.
Q Okay.
And then after that level of quality control at the Department of Criminal Justice Services you then set about with the help of your staff to analyze the data?
A Yes.
Q And as a result of analyzing the data under the Community Policing Act you had to submit a report by July of 2021 that we have been referring to as Government's exhibit one, correct?
A Yes.
Q Okay.
Q And you and your staff analyzers, or sorry, analysts, went through all of the data that was received and produced a report that was published, correct?
A Yes.
Q Okay.
What kind of quality control did you perform or did this published report go through before it was released?
A It was viewed by our agency director. It was reviewed by the Secretary of Public Safety. Those two

reviews took place before the report would be, was officially published.

Q So the official report had quality control before published?

A It had review. I wouldn't say it was a, you know, the same type of quality control we did where we get into the details. The higher level you go, they are looking at in a more general sense, I guess, than the hard core research people do.

Q But at some point after the higher level review occurred, it was published?

A Yes.

Q It was published in key findings and conclusions were contained within the report, right?

A Yes.

Q Is it true that one of the findings is that the Department of Criminal Justice Services staff was able to identify differences in traffic stop rates for persons in different racial ethnic groups?

A Yes.

Q And there were differences between driver racial ethnic groups regarding the reasons the stop was made, whether a search of an individual or the vehicle occurred, and what action was taken toward the driver. Is that a finding in the report?

A Yes.
Q Just to be clear, Richmond Police Department submitted all the required data before this report was produced, correct?
A No. That's not correct. The data that we received from the Richmond Police Department through the Virginia State Police covered the period from July 1 of 2020 through November 30 of 2020. The data that we used in the report, the full report, contained data that were submitted by agencies between July 1 of 2020 and March 31 of 2021. So we received fewer months of data from the Richmond P D than we received from many of the other localities.
Q But you went ahead and prepared the report based on the data received from all law enforcement agencies?
A Yes.
Q So you didn't perceive that as a problem in preparing your report?
A No. We stated in the report that one of our caveats or concerns which was behind the reasons that we were very cautious about interpretation is because we knew that there were multiple agencies that reported different time periods depending on how quickly they were able to get their data collection going and up and running and reported to state police. That was an

issue throughout the state.

THE COURT: Well, is it fair to say that you knew you had imperfect data, but you did your best with what you had?

THE WITNESS: Yes, sir, that is a very concise way of stating it.

THE COURT: All right.

BY MS AUSTIN:

Q Thank you, Your Honor.

Then doing the best with what you had you came to a conclusion that an analysis of traffic stops state-wide that black drivers were stopped at higher rates than white drivers?

A Yes.

Q And black drivers who were stopped were searched at higher rates than white drivers?

A Yes.

Q And you found that black drivers who were stopped were arrested at higher rates than white drivers?

A Yes.

Q And you didn't state in your report the data we received is just so bad our results are inconclusive?

A We didn't state it in those words, but I believe we essentially said that enough, multiple times.

Q But you didn't say it when you stated black

drivers were stopped at higher rates than white drivers.

You were able to conclude that.

A We were able to conclude that the numbers that we had showed that. But what we said throughout the report is that we know there are problems with those numbers.

THE COURT: Let me ask you. Do you think that the problem was the people couldn't tell whether the drivers they stopped were black or white?

THE WITNESS: We couldn't say that, sir. In any given situation we couldn't say that. What we were saying is that there was no standard, and law enforcement officers typically are looking for a, you know, some type of standard. So we are not saying we have any sense of like to what degree that may have played a role, but we are saying we believe that it is possible that is one of the things that could be muddying the interpretation of the data.

THE COURT: I will tell what. You have been doing this for 30 years, right?

THE WITNESS: Yes, sir.

THE COURT: Have you found in the Commonwealth of Virginia a pattern of law enforcement officers who are unable to tell the race of people that they stop?

THE WITNESS: No, sir, I haven't.

THE COURT: Okay. That was a yes or no question.

THE WITNESS: Yes.

THE COURT: You haven't.

THE WITNESS: We have not.

THE COURT: Okay. You know, I have been practicing law since 1976. I haven't seen that either.

Let's move on.

BY MS AUSTIN:

Q Thank you, Your Honor.

You talked about the disparity index. When you began your discussion about the conclusions and recommendations isn't it true that in your report you stated that these figures should only be used to identify where the numbers indicate certain ethnic racial groups are being disproportionately stopped?

A Yes, that is what we stated.

Q Regarding the disparity index you stated that the State had a 1.6 --

A Yes.

Q -- index.

Meaning if it is 1.1 to 1.9 it represents a moderate over representation for a group. And how likely it is that a driver would be stopped; correct?

A Correct.

Q Okay.

So Richmond had an -- overall state index, disparity index is 1.6?

A Yes.

Q Meaning blacks, African-Americans, were disproportionately -- there was a disparate index to the stops regarding African-Americans?

A Yes.

Q Disproportionately high?

A Yes. Relative to their driver age percentage of the population.

Q Okay.

And then the state disability index is 1.6, but on page 40 of your report -- well, on several pages of your report in the table, this table 15 A, you break down every single law enforcement agency and what the black driver disparity index is; is that right?

A For every locality that reported data to us, yes. It did not every single locality law enforcement agency.

Q Okay.

And Richmond Police Department was 1.6 disparity index, correct?

A Yes.

Q And as I understand it you have to submit a report

pursuant to the Community Policing Act every year?
A Yes.
Q And on July 1, correct?
A Yes.
Q You just recently submitted a report?
A No. We have not yet submitted a report for July 1 of this year, is that the question you are asking?
Q Yes.
A No, we are working on one, but we have not yet submitted one.
Q Isn't it mandated by statute that it be in by the first of July of every year?
A Yes, it is. But it is also understood that sometimes these reports get backed up because of work issues, staffing, things like that.
Q So you can't report, or can you report to us what your findings were, or will be, in the July 2st, 2022 report?
A We haven't finished it yet.
THE COURT: Well, the questions this. We know you haven't put it in writing yet. Do you know what the answer, what the disparity index is going to be for Richmond for African-American drivers in the report that is forthcoming, whenever it gets done?
THE WITNESS: Your Honor, I don't have that in

front of me what that number is.

THE COURT: He doesn't know what it is.

MS AUSTIN: Okay.

May I have one moment, Your Honor?

No further questions.

MR. SIEBERT: No further questions.

THE WITNESS: Thank you very much for coming, sir. Good to have a servant of the Commonwealth here. Thank you for coming.

THE WITNESS: Thank you, sir.

THE COURT: All right. Call the next witness, if any.

MR. GIBBONS: Government calls Special Agent Josh Valot.

THE COURT: All right.

(Witness stood aside)

MR. GIBBONS: Our final witness, Your Honor.

THE COURT: All right. Thank you.

JOSH VALOT

AFFIRMED AND TESTIFIED AS FOLLOWS:

DIRECT EXAMINATION

THE COURT: All right.

Now, when you testify you are welcome to keep your mask on or take it off.

THE WITNESS: Thank you.

THE COURT: Is it V-A-L-O-T?

THE WITNESS: Yes, it is, Your Honor.

THE COURT: Okay.

BY MR. GIBBONS:

Q Special Agent Valot, where are you employed?

A Employed with the Bureau of Alcohol, Tobacco Firearms and Explosives, ATF here in Richmond.

Q Are you case agent for the case against Keith Moore?

A I am.

Q As part of your work as case agent you reviewed a spread sheet of data that was produced yesterday to the Government by the defense?

A I did.

Q You analyzed that data at the request of the prosecutors?

A I did.

Q What did that data represent?

A The data represented traffic stops, information on traffic stops from Richmond Police Department from between July 1st of 2020 and December 6 of 2020.

Q How many traffic stops are recorded for the Richmond Police Department for this date range?

A Of the information that we analyzed 2500 traffic stops.

Q I am going to show you what has been marked Government's exhibit 1.

This has been admitted as defendant's exhibit six, also Government's exhibit one.

The Court already heard all about the DCJS report. We will skip that. Are you familiar with page 17 of DCJS report?

A I am.

Q What is contained on page 17 of that report?

A On page 17 it includes a table that has a list of records that were excluded from their analysis.

Q That is Government's exhibit 1 D as page 17?

THE COURT: Okay. Trying to figure out what that was. 1 D. I have got it right here.

BY MR. GIBBONS:

Q Zoom in on the table, please.

So these are exclusions for which reasons for which DCJS excluded data from the statewide data; is that correct?

A That's correct.

Q What are some of the reasons or criteria on which DCJS excluded statewide data?

A There was no age listed, no gender identified. There is no listing of the action taken by the officer. There is no mention of additional persons who were

arrested.
Q To be clear, you are not talking about the suitability of those exclusions, you are just talking about what the numbers are for those exclusions in the data provided to the Government by the defense?
A That is correct.
THE COURT: I think what he was saying is these are the reasons given by DCJS for not included?
MR. GIBBONS: Yes. The next, I was moving on to the next question, Your Honor. So he just identifying which of the RPD stops, how many are excludable for these reasons.
THE COURT: Are all of these Richmond stops on page 17?
MR. GIBBONS: Page 17 is the criteria by which DCJS has excluded.
THE COURT: Okay.
MR. GIBBONS: Then he is just going to give numbers, RPD data.
THE COURT: All right.
BY MR. GIBBONS:
Q Go through each of these categories, if you will.
Did you for stops in which there was a missing age?
A I did.

Q How many missing-age entries were there in the RPD data?
A 147 missing entries, or entries missing in age.
THE COURT: Missing age?
THE WITNESS: Correct.
THE COURT: Okay.
BY MR. GIBBONS:
Q What about gender?
THE COURT: Is this case about age?
MR. GIBBONS: No, sir.
THE COURT: Okay. Thank you.
MR. GIBBONS: We are giving the numbers, Your Honor.
THE COURT: All right.
BY MR. GIBBONS:
Q What about missing gender?
A Six entries with no gender.
Q What about a blank for "listed action taken as result of the stop?"
A There is five.
Q What about stops that lacked entry for whether a person was searched?
A Two stops.
Q What -- did you check for stops in which there was no listed entry for whether a person was arrested?

A Yes. There is 249 entries that did not have anything listed for that.

Q Were there some traffic stop entries that were missing multiple items of data such that it would be excludable on separate grounds?

A Yes, there were.

Q So how many total stops were missing at least one item out of the 2500 stops?

A There 346 stops.

Q Let's talk about duplicates and pull up Government's exhibit 5.

Special Agent Valot, did you also determine whether there were any duplicate traffic stops within the RPD data?

A Yes.

Q Exhibit 5 is the report of duplicate traffic stops within RPD data?

A Yes, sir.

Q Your Honor, we move to admit Government's exhibit five.

MS KOENIG: No objection, Your Honor.

THE COURT: Admitted.

BY MR. GIBBONS:

Q What did you determine, Special Agent Valot?

A Determined that there appears to be that a total

of 311 entries, although there is only 142 traffic stops, so, of the 142 unique traffic stops a number of them were entered two times, three times or in a few occasions four times.

Q So let's walk through a few. Scroll down to control numbers 1579 through 1582.

THE COURT: Well, that is not a lot a whole lot more legible. This is on exhibit five?

MR. SIEBERT: Yes, Your Honor, we will make it bigger.

Q In the middle, Special Agent, do you see control 1579 through 1582?

A Yes, sir.

Q Can you explain why these four stops are duplicates of each other?

A So all four of these stops appear to be duplicates of each other. They have the same date, they have the same location where the traffic stop occurred, the longitude longitude listed is the same. The race of the driver is identical. The age of the driver is identical.

THE COURT: Of all the data?

BY MR. GIBBONS:

Q Let's look at two more sets. 1915 and 1925.

I will get you a page number, Your Honor.

THE COURT: All right. All right. So these also have all the same information. So you conclude they were identical; is that correct?

THE WITNESS: They appear to be so, yes.

THE COURT: The same thing I take it would be true of 1936 and 1947; is that correct?

THE WITNESS: Yes, sir, that's correct.

BY MR. GIBBONS:

Q Looking briefly at 1915 and 1925, what do you notice about the latitude longitude of those two stops?

A The latitude longitude, corrected latitude longitude for the second listed stop is different than it is for the first stop.

Q So, one of the Federal Public Defender interns or Dr. Coston corrected latitude longitude for one of these but not the other?

A That's correct.

Q Were all of these 311 traffic stop entries perfect duplicates?

A No, they were not.

Q Could you explain that, please?

A Well, as we just discussed there is a few that had the latitude longitude, which was a little bit different. There was two stops in which there was an age listed in one of the stops and in the other stop

there was, the age there was not a value there, just zero. There was a few stops that were triple stops, listed three times for the stop, and one of the violations listed was different than the other.

Q Special Agent Valot, to summarize the work that you did, you determined that 346 traffic stop entries in the RPD data met at least one of the criteria that led DCJS to exclude that entry on the state-wide data?

A Yes, sir.

Q Determined that 311 traffic stop entries contained duplicate data?

A Yes.

Q If you eliminate those duplicates to one entry and excluded the other traffic stop entries 169 entries should be excluded?

A That's correct.

THE COURT: How many would you exclude if you only excluded the duplicates.

THE WITNESS: 169.

BY MR. GIBBONS:

Q Special agent, 169 --

THE COURT: So there were duplicates.

THE WITNESS: That's correct. Duplicate and triple.

THE COURT: Multiple entries of the same thing?

THE WITNESS: Yes, sir.

THE COURT: So, of those 169 you say, does that include, are you excluding all of the entries under the duplicates, or just if there are two of them, you exclude one of them?

THE WITNESS: That's correct. One entry, one stop and excluding the other.

THE COURT: Okay. Thank you.

BY MR. GIBBONS:

Q So taking those two numbers together, Special Agent Valot, 346 entries for data with missing or invalid values, and 169 duplicates, how many total traffic stops entries fall into one of these categories?

A 507.

Q 507 out of the 2500 traffic stops contained unreliable or missing data?

A Correct.

Q That is about 20 percent of the defense's data?

A Correct.

Q No further questions.

THE COURT: Cross examination?

CROSS EXAMINATION

BY MS KOENIG:

Q Agent Valot, you are an officer with ATF, right?

A I am an agent, yes, ma'am.
Q Agent, I'm sorry. You are not a data annalist, right?
A No.
Q Did you actually run the spreadsheets yourself?
A We ran them, myself and AUSA Gibbons ran them together.
Q You were observing Mr. Gibbons run the analysis, right, and then you made a report based on that?
A We did that last night, yes, ma'am.
Q Okay. And you also wrote a report that is dated July 15 of 2022, right?
A Yes, ma'am.
Q Last Friday?
A Yes.
Q In that report you talked about reviewing a spreadsheet that the Government had provided you with traffic stop data from July 1st of 2020 through December 5 of 2020, right?
A Yes, ma'am.
Q When did you actually look at those spreadsheets? Was it July 15?
A No, ma'am.
Q When was that?
A It was, I looked at it several times in the week

leading up to writing that report.
Q So starting July 8 or so?
A Actually probably would have been, I believe that it started at the end of, I think we received those close to the end of June. And I reviewed those spreadsheets several times to make sure that I was comfortable in running those queries.
Q So that you received these spreadsheets the end of June of 2022, right?
A Yes, ma'am.
Q And Mr. Gibbons or Mr. Seibert gave you specific things that they wanted you to look for to verify some facts and felt comfortable coming in here and testifying to today, right?
A Yes, ma'am.
Q And so ultimately if we look at what you perceive, or Mr. Gibbons or somebody perceived to be duplicate entries, and we take out what may be non-unique entires, we are eliminating 169 entries, right?
A Yes, ma'am.
Q All right.
You are certainly not trained in statistical analysis, right?
A No, I am not.
Q No further questions.

THE COURT: Thank you. Redirect?

REDIRECT EXAMINATION

BY MR. GIBBONS:

Q The data values that you were looking for, is that really a replication of what the Government raised in its Daubert motion filed April 8 of 2022?

A It is.

Q Nothing further, Your Honor.

THE COURT: All right.

Well, thank you for coming, sir. I appreciate it. Have a good rest of the day.

THE WITNESS: Thank you, sir.

THE COURT: Thank you. Good to see you.

(Witness stood aside)

THE COURT: All right. Does the Government rest?

MR. SIEBERT: Yes, Your Honor.

THE COURT: All right.

Now, the Government rests as to their part of things. We still have the potential other evidence.

MR. GIBBONS: Yes, sir.

THE COURT: They will be able to put on Dr. Chiles if they deem it necessary.

MR. GIBBONS: Yes, Your Honor.

THE COURT: Now, do you have a rebuttal witness?

MS KOENIG: I do, Your Honor.

THE COURT: All right. Let's hear your rebuttal witness.

MS KOENIG: I call Dr. Coston to the stand.

THE COURT: All right. Let's take a break before we do Dr. Coston. We are starting something new.

(A recess was taken)

ELI COSTON

RESUMED AND STAND AND TESTIFIED FURTHER AS FOLLOWS:

DIRECT EXAMINATION

BY MS KOENIG:

Q Doctor, I want to talk to you about two points.

So, we just heard you were in the courtroom when Agent Valot testified?

A Yes.

Q You had reviewed Government's exhibit five, which is the Government's exhibit that was believed to be duplicate entries, right?

A Yes, correct.

Q Did you review that between last night and this morning?

A Yes.

Q Is it possible that in fact they are correct that there are out of these numbers 142 individual stops and potentially 169 duplicates?

A That is possible, yes. There were two cases in

which there was a different code section noted, but I wouldn't dispute their overall argument, no.

Q Okay.

After receiving that data, and at some point today, did you go ahead and run all of the statistical analysis again without those 169 stops?

A Yes, I did.

Q I want to go through those with you.

THE COURT: Let me just ask, did it change the result any?

THE WITNESS: No, it does not change any of the results.

THE COURT: Any further questions?

MS KOENIG: The last thing I wanted to talk about, Dr. Coston, is that in our report on --

THE COURT: Is that because 169 is just a relatively small part of the sample?

THE WITNESS: It could have impacts if there had been a large difference in the racial proportionality versus the rest of the sample, but that wasn't the case. Sometimes when a sample size decreases you don't have enough cases to have the power to determine differences, but, no, that wasn't a problem here.

THE COURT: Thank you.

BY MS KOENIG:

Q On page four of your report where it says description of variables, there is a section that says location. In that paragraph you had described that you had done spot checking, essentially for the corrections that the intern from the Federal Public Defender had done at geocodio data, right?
A That is correct.
Q Why did you specifically include mention of those corrections in your report?
A Because those were corrections that I myself had done, or data cleaning that I engaged in.
Q When you do a data study is it your normal practice to do what you call data cleaning?
A Yes, it is.
Q In this case did you, how did that play out as it relates to the location specifically?
A So in regards to the location, again some of that data was provided by an intern at the Public Defenders Office, and I described how I verified that. But I did do additional data cleaning of my own. Before I did my analysis of the data you always run cross checks, you know. I also ran checks for the other variables in the data set aside from geolocation data. I also didn't report that in my report because that is part of typical data cleaning procedures, to look for problems

or issues in the data.
Q When you had done this data cleaning did you initially determine that there were 82 stops that fell outside of the City of Richmond?
A I believe it was 81 when I double checked, but yes, in the report I noted 82. But it was 81.
Q After we saw Agent Valot's report -- I sent it to you right? From July 15 of 2022, this past week end, did you go back and double check that?
A Yes.
Q You found that there were 81 stops outside of the City of Richmond?
A That's correct.
Q That is what you testified to yesterday?
A Yes.
Q And the data cleaning that you did in terms of manual correcting stops that happened outside of the City of Richmond, did that happen before you began drafting the report that you submitted in this case?
A Yes. That was prior to me finalizing my analyses and that was all done in December and early January.
Q Can you say with certainty it was done by at least January 9 of 2020?
A Yes, because that is when I submitted my initial draft report.

Q Why. Right. In reviewing Agent Valot's report did we discuss this weekend, did you let defense know for the first time that you had corrected more of the stops in your initial data cleaning process?
A Yes.
Q And is that when we asked that you send us what ultimately is in defendant's exhibit 14, the final cleaned version of the data that you analyzed?
A Yes.
Q And you sent that to me, I think on Sunday afternoon, July 17 of 2022?
A I believe so, yes.
Q Okay. No further questions.
THE COURT: All right.
Cross examination?

CROSS EXAMINATION

BY MR. GIBBONS:
Q Dr. Coston, these 311 potential duplicates, you didn't notice these duplicates when you, before you ran your analyses; is that correct?
A That's correct.
Q You didn't in fact do any determination or any analysis of duplicates at all until this weekend.
A I didn't do the analysis of duplicates. I used the Excel spreadsheet that was provided to me last

night.
Q Didn't even look for duplicates even after the Government raised the issue of over 300 duplicates on April 8 of 2022?
A I was not asked to do additional analysis at that point in time, so, no, I did not.
Q And you didn't mention on page four of the report when you were talking about fixes you made to the location in the data, you didn't mention that you had on your own fixed at least 128 traffic stop entries with regard to the location.
A I didn't mention my own data cleaning, no.
Q You didn't send the final data on which you relied for your fillings to Ms Koenig until this weekend?
A I don't believe I was asked for it prior to that date.
Q Nothing further, Your Honor.
THE COURT: Thank you. Follow up?
MS KOENIG: Nothing else, Your Honor.
THE COURT: Thank you. You may be seated. Thank for coming back, Doctor.
(Witness stood aside)
MS KOENIG: And the defense has no other evidence at this point, Your Honor.
THE COURT: Unless we come back with Dr. Chiles.

MS KOENIG: Right. On this.

THE COURT: You can't -- when we come back on this you can't have anything other than Dr. Chiles, or if he should die, some other.

MS KOENIG: I appreciate that, Your Honor.

Does The Court want to set a hearing date now for the next?

THE COURT: Hold on a second. All right.

Yes. Well, I guess first -- what did I order yesterday?

MS KOENIG: Now that I am saying that.

THE COURT: I told you to --

MS KOENIG: Yes, we have Dr. Chiles' report. We have to provide Dr. Chiles' report to the Government by August 8.

THE COURT: Fourteen days.

MR. GIBBONS: By August 22nd they are going to respond whether or not they intend to call their own expert, I believe.

THE COURT: You remember.

MR. GIBBONS: Yes, Your Honor.

MS KOENIG: Perhaps, I guess it makes sense to set a hearing once we know if the Government is going to call a witness, and so we know that person's availability.

THE COURT: Contact chambers and we will set a date after we know if the Government wants to call a witness. If they want to call a witness they have to go find a witness, and I can't imagine Richmond is a -- they have a lot of historical interests. I don't think that should be a problem. Then here are some questions that we need to answer in this case. And my questions are couple in a couple of different areas.

And I guess the way I sort of thought about it for myself is what if this is a mixed motive case? That is what we call it in employment law where, yes, they had motive, but also a good motive. So what if they were trying to, if they had a strategy that was we will fight crime. That is certainly a legitimate interest of the Government and no one would contend that that was in any way improper.

And their strategy, what if they adopted strategic measures, like assigning police here and there and that sort of thing, knowing that the strategy will result in the arrest or stopping or some adverse effect on a disproportionate number of African-Americans, or putting, to sort of put it in blunter terms, what if these areas where they have identified hot spots and so forth, what if the Government decided that, Richmond Government, decided this is a place where we need to,

we need to devote our limited resources to fighting crime because the people in this area deserve to have a life where they can go out at night and stroll around and all that sort of thing.

But they did that knowing that one effect of that would be that many African-American people would get arrested. Does that mean -- is that the kind of bias that the law forbids? Does that in some way require dismissal of the indictment? But, you know, I think you need to think about some of the things we talked about here purely in hypothetical terms, employment, strategy, the effect of a grat deal of crime.

That is one question that needs to be answered.

The second question that needs to be answered is let's assume for a second that there is a pattern of bias on behalf of the Richmond Police Department. What effect does that have on this case where you had -- I remember the motion to suppress evidence in this case. Correct me if I am wrong on this, but as I recall, Mr. Moore was driving a car with one of these fake dealer tags on it. And as the police had stopped several people on it, and had figured out that somebody was making some money selling fake dealer tags, or maybe the dealer was stealing cars -- you know, using the same tag instead of buying new ones, I don't know.

But there was something wrong with the tag.

So we had evidence that they stopped a couple other people and said, hey, these tags aren't any good, you need to get some real tags for your car. And then they sent these people on their way.

But with Mr. Moore, as I recall, it was a little different. Mr. Moore didn't stop when the police got behind him. He drove away a little bit, eventually got out of the car, and he ran down the road and eventually he was caught by the police officers and brought back.

And then there were statements that he made to the police at various times. Okay. So let's assume for a second that Mr. Moore -- that bias strategy that the City had resulted in Mr. Moore getting stopped. Does that mean we have to throw out the evidence in this case? That is really the question. Well, not that we have to throw out the evidence, does that mean we have to throw out the case when you have somebody who does this kind of stuff that sort of makes people, that makes him a target for police activity?

And then we also need to ultimately address the suppression issue. As I recall, correct me if I am wrong, Mr. Seibert, that issue was fully briefed, wasn't it?

MR. SIEBERT: I believe fully briefed and argued

with Mr. Elliker.

THE COURT: This case has had a number of -- one of the things this case has had more of than prosecutors is law clerks. Okay. So we need to -- I will need to address that at some point. But I don't think we need further briefing on the suppression issue.

Okay.

All right. So let me know what you decide to do about Dr. Chiles' testimony. And I urge the defendant to think carefully about whether Dr. Chiles adds anything to the evidence in this case. Remembering that the Richmond that existed a hundred years ago is a different place than it is now. You know, now it is an area that has an African-American major, and one time had a majority African-American City Council, and African-American police officers, police chief. So you need to sort of think about how far along -- how long the City has to suffer because of a racist past? It is clear that Richmond had a racist past. And the question is about the impact. Think carefully about that.

MR. SIEBERT: I think the argument for the motion to exclude the defense expert, Dr. Coston, could be done at the later date as well.

THE COURT: Do that in your brief in this case. Okay? I have read your brief. Do you have anything to add what is in there?

MR. GIBBONS: Not really, Your Honor.

THE COURT: Well, I will think about that.

I will let you will know whether I think I need additional briefing.

I have spent a lot of time reading those briefs. It is a Daubert issue. Obviously if I exclude Dr. Coston's testimony it pretty much shoots the defense's claim in this case. All right. Anything else, counsel?

MR. GIBBONS: None from the United States.

MS KOENIG: Not from defense.

THE COURT: Thank you all very much. We will recess court for the day, or adjourn. We are adjourning court. Thank you.

HEARING ADJOURNED.

THE FOREGOING IS A TRUE AND CORRECT TRANSCRIPT.

GILBERT FRANK HALASZ, RMR

Official Court Reporter